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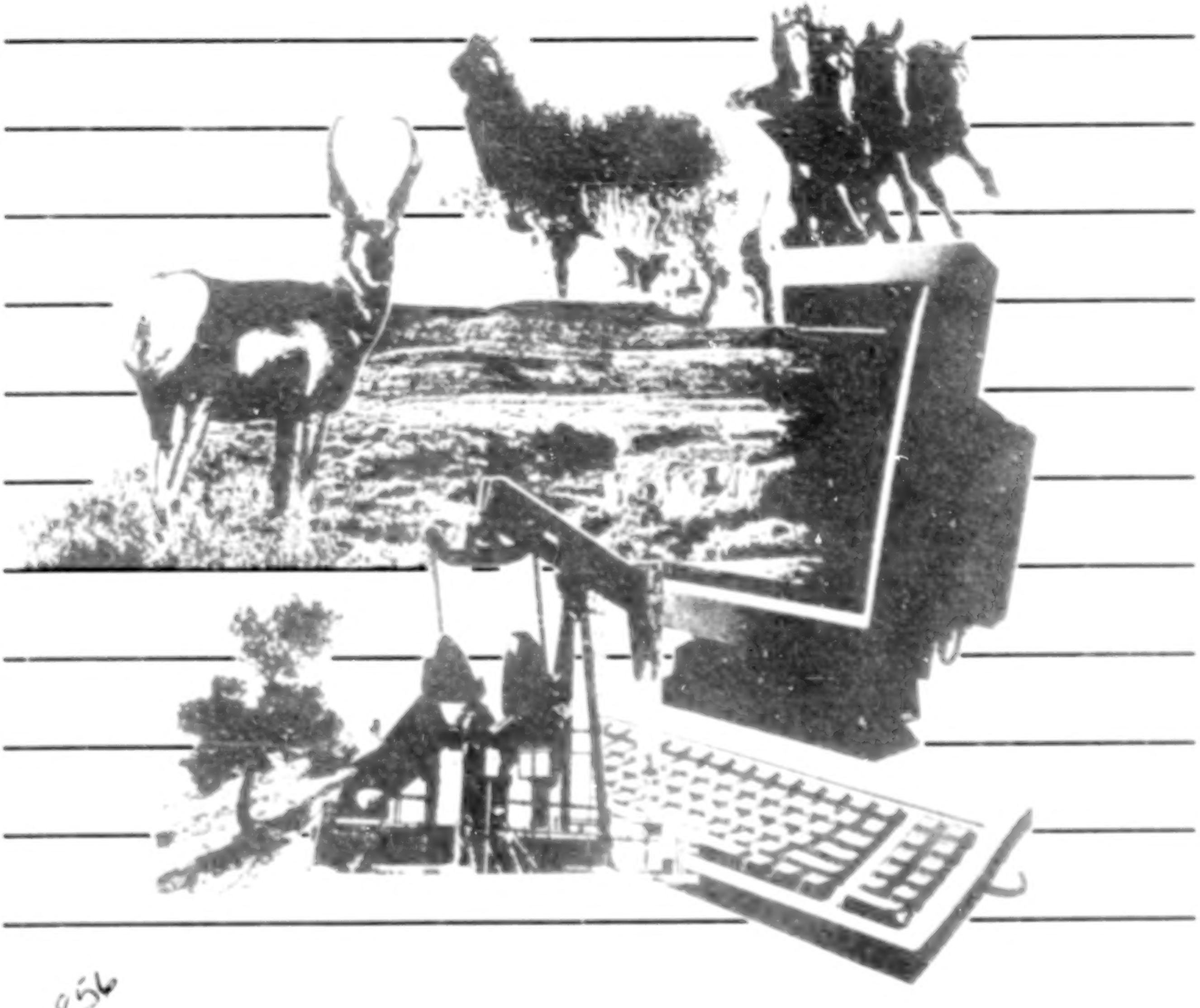
U.S. Department of the Interior
Bureau of Land Management
Rock Springs District Office

Green River Resource Area October 1997

Record of Decision and Green River Resource Management Plan



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The Bureau of Land Management is responsible for the balanced management of the public lands and resources and their various values so that they are considered in a combination that will best serve the needs of the American people. Management is based upon the principles of multiple use and sustained yield; a combination of uses that take into account the long term needs of future generations for renewable and nonrenewable resources. These resources include recreation, range, timber, minerals, watershed, fish and wildlife, wilderness, and natural, scenic, scientific and cultural values.

BLM WY PL-97 027+1610

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RECORD OF DECISION

for the

GREEN RIVER RESOURCE MANAGEMENT PLAN ENVIRONMENTAL IMPACT STATEMENT

DECISION

The decision is to select and approve the attached Green River Resource Management Plan (RMP), to guide the future management of the public lands and resources administered by the Bureau of Land Management (BLM), in the Green River Resource Area. The Green River RMP supersedes all previous land-use planning decision documents for the Green River Resource Area. The Green River RMP was prepared under the regulations (43 CFR 1600) for implementing the land use planning requirements of the Federal Land Policy and Management Act (FLPMA). An environmental impact statement (EIS) was prepared for the Green River RMP in compliance with the National Environmental Policy Act of 1969 (NEPA). A copy of the Environmental Impact Statement (EIS) for the Green River RMP is on file in the Green River Resource Area Office.

The decisions in the Green River RMP provide general management direction and allocation of uses for the BLM-administered public lands and resources in the planning area. The selection and approval of the Green River RMP is based upon the analysis of environmental impacts of four alternative management plans, public comments, and consultation with federal, state, and local governments and agencies, and upon the consideration of 5 planning issues: 1) minerals resource management and rights-of-way, 2) land tenure adjustment and resource accessibility, 3) resource uses affecting vegetation, soils, air, and watershed values, 4) recreation and cultural resource management, and 5) special management areas.

The attached Green River RMP is the proposed RMP presented in the Green River RMP Final EIS, published in April, 1996, with minor correction of errors and wording clarification. The Green River RMP provides a balance between production and commodity uses with protection of the environment. It represents the BLM's preferred management plan alternative for the Green River Resource Area and one of the environmentally preferred alternatives, in terms of minimizing environmental impacts and guiding the uses of the public lands in the resource area. This alternative best meets the Bureau's statutory mission under the Federal Land Policy and Management Act, and identifies actions to protect resources and to avoid or minimize environmental harm while allowing for commodity uses. Alternative C of the EIS, which would place more restrictions on land uses than the approved RMP, also qualifies as an environmentally preferred alternative.

WILDERNESS STUDY AREAS

The Bureau's recommendations to the Secretary of the Interior on Wilderness Study Areas (WSAs) in the Green River Resource Area have been made under separate documentation. These areas were addressed in separate Wilderness EIS and Wilderness report documents which are also on file in the Green River Resource Area Office. The decisions regarding wilderness area designations are made by Congress. When Congress makes the Wilderness decisions for the WSAs in the Green River Resource Area, they will be incorporated into the Green River RMP.

SPECIAL MANAGEMENT AREA DESIGNATIONS

There are unique and important areas, values, or resources on BLM-administered lands within the Green River Resource Area that meet the criteria for protection and management under special management designations.

Areas of Critical Environmental Concern

The following designations for Areas of Critical Environmental Concern (ACEC) are retained (or modified) or established. The ACEC designations apply only to BLM-administered public land surface.

Prior ACEC Designations Retained (or Modified):

Cedar Canyon ACEC (approximately 2,550 acres)

Greater Red Creek ACEC (approximately 131,890 acres - originally Red Creek ACEC, expanded from 55,880 acres to include relevant and important values in the Currant Creek and Sage Creek Drainages)

Greater Sand Dunes ACEC (approximately 38,650 acres)

Natural Corrals ACEC (approximately 1,276 acres)

Oregon Buttes ACEC (approximately 3,450 acres)

Pine Springs ACEC (approximately 6,030 acres, expanded from 90 acres to include adjacent relevant and important values)

White Mountain Petroglyphs ACEC (approximately 20 acres)

New ACEC Designations:

South Pass ACEC (approximately 53,780 acres)

Special Status (Candidate) Plants ACEC (approximately 900 acres)

Steamboat Mountain ACEC (approximately 43,270 acres)

Special Recreation Management Areas

The BLM administered public lands in six areas are designated Special Recreation Management Areas (SRMAs). These SRMAs are the Killpecker Sand Dunes, the Oregon and Mormon Pioneer National Historic Trails, the Continental Divide National Scenic Trail, the Continental Divide Snowmobile Trail, the Green River, and the Wind River Front. The remainder of the BLM administered public lands in the Green River Resource Area are designated an Extensive Recreation Management Area (ERMA) (see Map 22).

PROTESTS

Eight protests were submitted during the 30-day protest period for the Proposed Green River RMP. All of the protests were responded to and resolved by the Director of the Bureau of Land Management (BLM). Resolution of the protests required some minor corrections and wording clarification but did not result in changing any of the proposed Green River RMP decisions.

Four additional letters were submitted to the Director during the protest period. These letters were submitted by parties who either had not participated in the planning process and had no standing to submit protests, did not protest a proposed decision in the proposed plan, or simply asked for clarification and information. Responses to the concerns raised in these letters were provided either by the Director or the Wyoming BLM State Director.

The Rock Springs Grazing Association submitted a protest (1) objecting to the potential BLM acquisition of 44 square miles of non Federal land in Sweetwater County (which appeared to include many "live waters" on private and state administered lands), without any material analysis; (2) stating that the BLM made no analysis of the effects of the Proposed RMP on the adjacent private lands as a result of designating and managing ACECs; and (3) stating that substantial changes were made between the draft EIS for the RMP and the final EIS for the RMP (differences between the preferred plan in the draft EIS and the proposed plan in final EIS were also a protest issue with the Wyoming State Grazing Board, and the Wyoming Outdoor Council).

The Wyoming State Grazing Board, Gary Zakotnik, Big Sandy Conservation District, Vermillion Ranch Limited Partnership, and Thoman Ranch protested portions of the proposed RMP relating to livestock grazing issues. The Thoman Ranch also protested portions of the proposed RMP relating to wild horses and candidate plant species.

The National Wildlife Federation submitted a protest stating that the proposed RMP (1) did not incorporate the new regulatory priorities for protecting the fundamentals of rangeland health, that it set the levels of livestock grazing too high, and that it inappropriately provided that rangeland monitoring must be completed before implementing changes in grazing levels, (2) that it failed to designate lands unsuitable for coal surface mining because of their importance to wildlife, and (3) that it was lacking in providing protection for wildlife.

The Wyoming Outdoor Council, the Wyoming Chapter of the Sierra Club, Biodiversity Associates, Friends of Wild Wyoming Deserts, and the Greater Yellowstone Coalition submitted a joint protest on the proposed RMP objecting to (1) changes made between the draft and final EISs, (2) portions relating to protection of air resources (this was the only issue of protest for the Greater Yellowstone Coalition), (3) exclusion of rivers or waterway segments crossing private lands from the BLM Wild and Scenic Rivers review, and (4) not establishing intervals and standards for monitoring and evaluating the RMP.

The issues raised in the protests brought to our attention that some wording and information presented in the proposed RMP and Final EIS caused confusion and misunderstanding. To help rectify this, clarification has been provided in the attached Green River RMP. In resolving the protests on the proposed RMP and addressing the concerns raised, the BLM made the following clarifications, reflected in the Green River RMP. It was not necessary to make any changes in the proposed plan in the Final EIS.

1. The appendix describing acquisitions to be pursued has been clarified to avoid further confusion about acquisition of State lands. Specific State land parcel exchange proposals are not included in the appendix material attached to the approved RMP. The potential for individual site specific parcel exchanges still exists, and should an exchange occur, the information in this appendix would be appropriately updated (Appendix 8-3).

   Clarification has been added to the Lands and Realty Management section of the RMP to include wording that the preferred method of acquisition is through exchange, involving a discretionary and voluntary transfer of lands between the parties involved.

2. Information in the appendix describing standard operating procedures for range improvements and vegetation manipulations (Appendix 9-2) has been clarified.

   Table A9-2-1 has not been included as part of the appendix to remove the confusion of this table being considered and applied as a land use plan decision. This table was intended to represent one example of several available methods that may be used toward attaining the management objectives for riparian areas, as described in the Proposed RMP, where livestock grazing has been determined to be a concern.

   Clarification has also been added to the Vegetation Management section, now providing additional information on some of the methods that can be used to achieve proper functioning condition for riparian areas. This section indicates that forage utilization levels is one of many tools or methods that can be used, if and where appropriate, toward meeting management objectives for riparian areas. The utilization guideline information provided in Table A9-2-1 (see previous paragraph) may be considered and applied on an individual site basis during site specific activity and project planning for achieving riparian objectives.

3. The Wild Horse Management section and the Wild Horse Herd Management Area map in the RMP have been modified to clarify that the Little Colorado Desert Wild Horse Herd Management Area (WHHMA) is not a new proposed WHHMA. This area was originally established as a WHHMA in 1971 in accordance with the Wild Horse and Burro Act (Map 27).

4. The Special Management Area section of the RMP and the Visual Resource Management map in the RMP have been corrected to clarify the inconsistencies between the narrative in Special Management Areas and Summary Table 2-1 of the Final EIS (Table 14 and Map 24).

   Cedar Canyon - VRM classifications are II, III, and IV. Specifically, the area that can be seen for 1/2 mile from the petroglyphs (vista) is a Class II VRM area.

   Natural Corrals - VRM classification is II.

   Pine Springs - VRM classification is II.

   White Mountain Petroglyphs and the area that can be seen for 1/2 mile from the petroglyphs (vista) - VRM classification is II.

5. An acreage clarification has been provided for the Greater Sand Dunes ACEC.

6. Wording clarifying that the Recreation Opportunity Spectrum (ROS) is an informational tool and not a decision factor has been provided in the recreation management objective.

7. Clarification has been provided in the introduction to the Green River RMP that appendix materials are not land use plan decisions but are intended as support material and guidance to the implementation and use of land use plan decisions.

8. Clarification has been provided under Wild and Scenic Rivers Management regarding the correct mileage of the scenic and recreational classifications on the Sweetwater River. The notation of miles of the river that meet the suitability factors have not changed and have always been presented correctly in the wild and scenic rivers appendix.

9. A footnote has been added to the table of oil and gas lease restrictions to clarify the restriction on floodplains. This footnote references the Watershed Management section of the Green River RMP that provides the guidance for managing surface disturbing activities in floodplains (Table 7).

10. The BLM will address the following items in future site specific activity planning and will modify or amend the Green River RMP, if appropriate.

    a. Fluid mineral leasing decisions will be developed for the Steamboat Mountain and Greater Sand Dunes ACECs and surrounding area.

    b. The site specific coordinated activity plan for the Steamboat Mountain and Greater Sand Dunes ACECs will identify the areas where withdrawals from mineral location activities would be pursued.

DEFERRED DECISIONS IN THE STEAMBOAT MOUNTAIN, AND GREATER SAND DUNES ACECS AND ADJOINING AREAS

The fluid mineral leasing decisions and some locatable mineral decisions are deferred in a "core" area, involving the eastern portion of the Greater Sand Dunes ACEC (not including any parts of the Buffalo Hump or Sand Dunes Wilderness Study Areas (WSAs) because WSAs are closed to mineral leasing by Congressional mandate), the entire Steamboat Mountain ACEC, and the area of overlapping crucial big game habitats surrounding and adjacent to the Greater Sand Dunes and Steamboat Mountain ACECs. Approximately 85,000 acres are involved with this "core" area (see Map ROD-1). Because more site specific and detailed information is needed to make the fluid mineral and locatable mineral decisions for the core area, these decisions will be deferred in this core area until a coordinated activity plan (CAP) covering the area is completed.

Specifically, the decisions of, if and where fluid mineral leasing (i.e., oil, gas, geothermal, coalbed methane) will be allowed in the core area, and the conditional requirements of any allowable fluid mineral leasing in the core area, are deferred until completion of the activity plan. Accordingly, no leases for federally-owned fluid minerals will be issued in the "core" area until completion of the activity plan. Additionally, determining where withdrawals from mineral location (i.e., filing of mining claims) and related mining activities will be pursued, is also deferred in the core area until completion of the activity plan.

Decisions on the retention or revocation of existing withdrawals in the core area, as presented in the RMP, will not be deferred and are effective with this record of decision. While completing the activity plan, those parts of the core area not covered by withdrawals will remain open to mineral location. The other land use plan decisions for the core area, as presented in the Green River RMP, are also not deferred and are also effective with this record of decision.

Because of the numerous and complicated land and resource use interrelationships and the need to address cumulative effects concerning the deferred decisions for the "core" area, the entire area to be addressed by the site specific activity plan will involve about 600,000 acres, surrounding and including the core area. The objective of this activity planning effort will be to determine the appropriate level and methods of all the combined uses possible that are mutually compatible and that provide for the important resource concerns in the area, such as sustainability of crucial big game habitat, air and water quality, scenic quality, vegetative cover and soil stability, recreational activities, livestock grazing and range improvement activities, mineral development and other important resource concerns. The CAP will provide more specific management direction for the activity planning area to prevent or address potential conflicts among or resulting from these uses.

The area to be addressed and analyzed for the CAP (about 600,000 acres) represents the cumulative impact analysis area for the activity plan because the lands outside the "core" area could be affected by the management of the core area and vice versa. Therefore, criteria have been established to avoid premature commitments allowing development or disturbance within highly sensitive areas for wildlife and/or areas that are sensitive for soils, vegetation, visual intrusion, etc., within the activity plan area, until the CAP is completed. Land and resource use activities proposed for the public lands outside the core area may be restricted or prohibited, if they fall in areas where the following criteria apply:

a) Slopes greater than 20%

b) Forest-type areas such as juniper, limber pine, and aspen

c) Tall sagebrush habitat (sagebrush 4 feet high or taller)

d) Badland areas with highly erodible soils

e) All mountain shrub communities such as mountain mahogany, bitterbrush, and serviceberry (usually associated with 20% slopes)

f) All big game severe winter relief/crucial winter range areas and big game birthing areas

g) Other sensitive areas or situations that may be identified.

ALTERNATIVES

Alternatives Considered in Detail

Each of the four alternative plans examined in detail provided a different emphasis for managing the resource area, and each resolved the planning issues differently.

Alternative A, Continuation of Present Management (No Action), continued the existing management and uses of the public lands and resources at present projected levels.

Alternative B emphasized developing and using natural resources. Environmental protection was provided for but the major emphasis was resource development.

Alternative C emphasized protection of the environment to a greater extent than Alternatives A or B. Resource development was provided for but the major emphasis was resource protection.

The Preferred Alternative (and Proposed Plan) allowed for resource use, with greater emphasis on the protection of the natural environment than Alternatives A or B. The Preferred Alternative consisted of watershed and wildlife prescriptions from Alternative C, wild horse management prescriptions from Alternative B, and the remaining resource management prescriptions (e.g., leasing, forest management, and livestock grazing) from Alternatives A, B, and C.

Alternatives and Management Options Eliminated from Detailed Study

Alternatives and management options considered but eliminated from detailed study included: no mineral (oil and gas) leasing, and lease stipulations (or development restrictions) that are less stringent than a no surface occupancy requirement in certain sensitive areas, no grazing on public lands, no timber harvesting on public lands, and maximum unconstrained alternatives that exclude other resource uses.

The Selected Plan

The Green River RMP consists of the proposed RMP described in the Final EIS, with some reorganization and changes as a result of public comment. As a result of protests on parts of the proposed RMP, some clarification has been included in the Green River RMP, however, no changes were made to the proposed decisions identified in the proposed RMP. The land use plans of local and state governments and other federal agencies in and around the Green River Resource Area have been considered during the planning process to ensure the approved Green River RMP will be compatible with them.

PUBLIC PARTICIPATION AND CONSISTENCY

Public participation occurred throughout the planning process. Both formal and informal involvement methods were encouraged and used. The public participation that occurred is described in Chapter 5 of the Final EIS. The Environmental Protection Agency Notice of Filing for the Final EIS was published in the Federal Register on April 5, 1996. News articles were published in newspapers and presented on the radio concerning both the draft and final EISs. Open houses and meetings were held throughout the planning process. Twelve letters were submitted to the Director during the 30-day protest period for the Proposed Green River RMP and Final EIS.

Government agencies, organizations, and individuals received copies of both the draft and final EIS documents. Comment letters were received from individuals and organizations at the Draft EIS stage. Responses to these comments were prepared and printed in the Final EIS.

The Bureau of Reclamation is a cooperating agency in the preparation and review of the EIS. The Bureau of Reclamation manages Fontenelle Reservoir and surrounding lands, and lands in the Farson area and around the Big Sandy River. Comments received from the Bureau of Reclamation have been incorporated into the EIS.

The U. S. Fish and Wildlife Service concurred with the BLM "no effect" conclusion on the Proposed Green River RMP for threatened and endangered species. Since the proposed decisions in the proposed RMP were not changed, the "no effect" conclusion is still applicable.

The Governor's letter of June 4, 1996, indicated no consistency problems between the Proposed Green River RMP and State of Wyoming plans and programs. However, concern was raised over potential confusion that exchanges for state lands in special management areas identified by the BLM might be considered as already agreed to by the state. Clarification has been provided in the Green River RMP that it is not the intent of BLM to acquire all state lands in special management areas, and that no such agreement has been reached. Exchanges can be considered any time with no obligation from either party. Concern was also raised with potential confusion over information in a table identifying utilization guidelines for proper functioning condition (located in Appendix 9-2 of the Final EIS). This livestock grazing issue is similar to those expressed by several parties who filed protests. To remove the confusion of this table being considered and applied as a land use planning decision, the table has not been included as part of the appendix materials. This utilization guideline information, as well as any appropriate method, may be considered and applied on an individual site basis, during site specific activity and project planning for achieving riparian objectives.

Grazing permittees/lessees were contacted throughout the process and were consulted about the allotment categorization process. Discussions included: range condition and existing grazing management, changes in management, range trend and suitability, forage production, riparian area management, wildlife habitat values, user conflicts, public controversy, land ownership patterns and acreage, and range improvement needs.

The public is invited to continue to participate in the implementation of the Green River RMP through involvement in the activity or implementation planning phase of the planning process. This phase deals with site specific and detailed decision making and project implementation or approval in support of the general land use planning determinations presented in the RMP.

The Green River RMP is consistent with officially adopted plans, programs, and policies of other Federal agencies and State and local governments, as well as those of the Department of the Interior and BLM.

MONITORING AND EVALUATION

Management actions and decisions of the Green River RMP will be tracked and evaluated to determine effectiveness and to determine if the objectives of the RMP are being met. If evaluation indicates that the RMP is not working as expected or needed, or if situations in the resource area change, it may become necessary to modify, amend, or revise the RMP. Intervals and standards for monitoring and evaluation will be established as necessary.

All mitigation measures identified directly or referenced or implied in the Green River RMP are adopted. Additional or revised mitigation identified through activity or implementation planning or individual analysis, and that are in conformance with the RMP objectives, will be considered a supporting part of the Green River RMP.

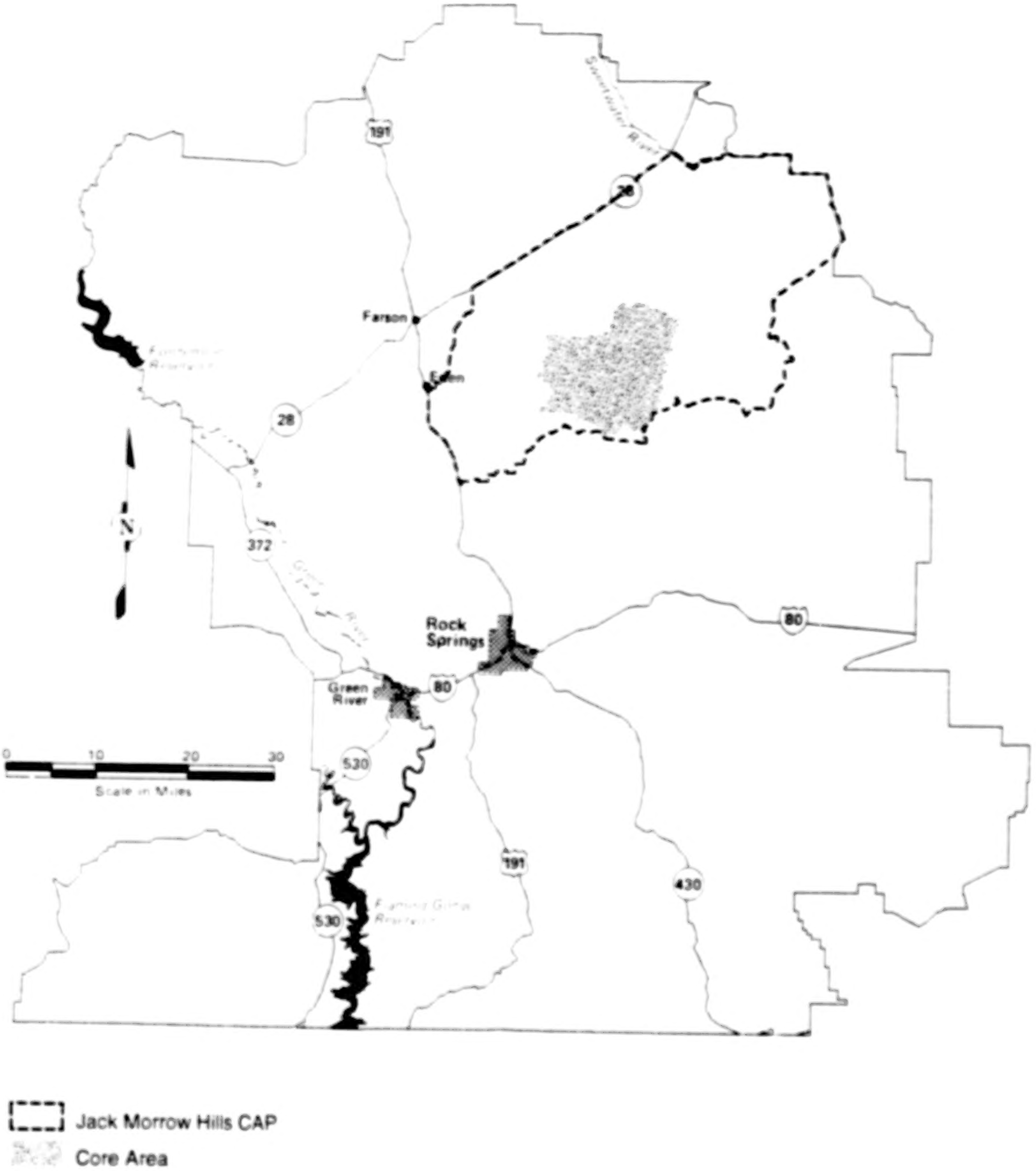
PUBLIC AVAILABILITY OF THIS DOCUMENT

Copies of the Green River RMP are available on request from the Green River Resource Area Office located at:

Bureau of Land Management
Green River Resource Area Office
280 U.S. Highway 191 North
Rock Springs, Wyoming 82901-3447
Telephone: (307) 352-0256

Alan R. Pierson
State Director

April 3, 1997
Date



Map ROD-1

Jack Morrow Hills CAP Area

Green River RMP

RECORD OF DECISION
and
APPROVED RESOURCE MANAGEMENT PLAN
for the
GREEN RIVER RESOURCE AREA

Prepared by

U.S. Department of the Interior
Bureau of Land Management
Green River Resource Area
Rock Springs District
Rock Springs, Wyoming

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State Director

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Date

ABBREVIATIONS

ACEC	Area of Critical Environmental Concern
ACHP	Advisory Council on Historic Preservation
AIRFA	American Indian Religious Freedom Act
AMP	Allotment Management Plan
APD	Application for Permit to Drill (an oil or gas well)
APHIS	Animal and Plant Health Inspection Service (USDA)
ARPA	Archeological Resource Protection Act
AUM	Animal unit month
BBLS	Barrels (a measure of the quantity of condensate)
BCF	Billion cubic feet (a measure of quantity of natural gas)
BLM	Bureau of Land Management
CFR	Code of Federal Regulations
CRMP	Cultural Resource Management Plan
CSR	Channel stability rating
DBH	Diameter at Breast Height
EA	Environmental Assessment
EIS	Environmental Impact Statement
E.O.	Executive Order
FLPMA	Federal Land Policy and Management Act (of 1976)
FMU	Forest management unit
FR	Federal Register
FTE	Full time equivalent
GRRA	Green River Resource Area
HMP	Habitat management plan
IBLA	Interior Board of Land Appeals
KGS	Known geologic structure
KSLA	Known sodium leasing area
MFP	Management Framework Plan (pre-FLPMA BLM land use plan)
MBF	Thousand board feet (a measure of timber volume)
MCF	Thousand cubic feet
MMBF	Million board feet (a measure of timber volume)
MMCF	Million cubic feet
MSL	Mean sea level
NEPA	National Environmental Policy Act (of 1969)
NHL	National Historic Landmark
NHPA	National Historic Preservation Act
NNL	National Natural Landmark
NPS	National Park Service
NRA	National Recreation Area
NRHP	National Register of Historic Places
NSO	No Surface Occupancy (a stipulation on an oil and gas lease)
NWPS	National Wilderness Preservation System
ORV	Off-road vehicle
PRLA	Preference Right Lease Application
RAMP	Recreation Area Management Plan
RCRA	Resource Conservation and Recovery Act (1976)
RMP	Resource Management Plan (BLM land use plan under FLPMA)
SHPO	State Historic Preservation Officer
SRMA	Special Recreation Management Area
TCLP	Toxicity Characteristic Leaching Procedure
USFWS	U.S. Fish and Wildlife Service
VRM	Visual Resource Management
WGFD	Wyoming Game and Fish Department
WHHA	Wild Horse Herd Area
WSA	Wilderness Study Area
W&SR	Wild & Scenic River(s)

GREEN RIVER RESOURCE MANAGEMENT PLAN

INTRODUCTION

This Green River Resource Management Plan (RMP) provides management direction for approximately 3.6 million acres of public land surface and 3.5 million acres of Federal mineral estate administered by the Bureau of Land Management (BLM) in the Green River Resource Area (Table 1). The Green River RMP supersedes all previous planning decision documents for the Green River Resource Area.

The resource area administrative boundary includes parts of Sweetwater, Lincoln, Sublette, Fremont, and Uinta counties, in southwestern Wyoming (Map 1).

As provided by the Federal Land Policy and Management Act (FLPMA), the BLM has the responsibility to plan for and manage the "public lands." As defined by the Act, the "public lands" are those Federally owned lands, and any interest in lands (e.g., Federally owned mineral estate), administered by the Secretary of the Interior, specifically through the Bureau of Land Management (Map A). Within the Green River RMP planning area, there are varied and intermingled land surface ownerships and overlapping mineral ownerships. Therefore, the administrative jurisdictions for land use planning and for managing the land surface and minerals are also varied, intermingled, and overlapping.

Because of this situation, the Green River RMP does not include planning and management decisions for lands or minerals within the planning area that are privately owned or owned by the State of Wyoming or local governments. Providing direction for the surface or minerals management of these lands is not within BLM's jurisdiction. In addition, the RMP does not include planning and management decisions for those Federally owned minerals within the planning area, that are overlapped by Federally owned land surface that is administered by other Federal agencies. Table 1 summarizes the land surface and mineral ownerships and administrative relationships for the area (Map 2).

The planning and management decisions in the Green River RMP are represented by a selection of management objectives and management actions which resolve the planning issues and provide for sustained multiple use management of the public lands and resources. The RMP decisions are presented in bold type.

Appendix material referenced in this RMP provides resource information on wild and scenic river classifications, ACEC relevance and importance criteria, and general guidance and information that can be used in implementing the RMP decisions. The Wyoming "Standards for Healthy Rangelands and Guidelines for Livestock Grazing Management for Public Lands Administered by the Bureau of Land Management in the State of Wyoming" were approved by the Secretary of the Interior on August 12, 1997. They have been included in the appendix materials with the Green River Resource Management Plan and referenced in the RMP. The materials in the appendices are not RMP decisions. Maps related to the RMP are included. The small map scale was chosen to show a general sense of location. More detailed maps are on file in the Green River Resource Area Office. The information on these maps is dynamic and subject to change as new resource information and data are acquired.

All public land and resource uses in the planning area must conform with the decisions, terms, and conditions of use described in this RMP. Detailed decisions for the implementation of specific projects will be made through activity planning and environmental review that will be completed prior to the implementation of the project. Likewise, the authorization of specific uses will be based on conformance with RMP decisions and completion of environmental analyses. Figure 1 provides an illustration of the planning process.

AIR QUALITY MANAGEMENT

MANAGEMENT OBJECTIVE: **The objectives for management of air quality are to: 1) maintain and, where possible, enhance present air quality levels; 2) protect public health and safety and sensitive natural resources; and 3) within the scope of BLM's authority, minimize emissions which may add to acid rain, cause violations of air quality standards, or reduce visibility** (Appendix 9-3).

MANAGEMENT ACTIONS: **Special requirements (e.g., use authorization stipulations, mitigation measures, conditions of approval, etc.) to alleviate air quality impacts will be identified on a case-by-case basis and included in use authorizations (including mineral leases).** Examples of such requirements would include: limiting emissions, spacing of source densities, requiring the collection of meteorological and/or air quality data, covering conveyors at mine sites (to lower dust emissions), and placing restrictions on flaring of natural gas (to reduce sulfur emissions). See Appendix 5-1 for specific guidance for applying air quality protection measures.

Plant facilities could be authorized where they minimize air quality impacts over the planning area, particularly the Flaming Gorge National Recreation Area. They may not be authorized where they might cause heavy fog conditions that are hazardous to public health by causing black ice on major highways, or possibly extreme and continual fog that could inhibit transportation or recreation activities.

Surface disturbing activities will be managed to prevent violation of air quality regulations. Construction and surface disturbing activities will be designed with dust control measures to reduce particulate matter and visibility impacts. Coordination with local and state agencies to control dust on unimproved dirt roads will occur where necessary (see the Wyoming AQ Regulations in Appendix 5-1).

BLM will continue to participate with other agencies in the collection of air quality data and air quality pollution analysis (Appendix 5-1).

The State of Wyoming has the authority and responsibility to regulate air quality impacts within the state, including Class I areas. The BLM will continue to cooperate and coordinate with the USDA-Forest Service, U.S. Environmental Protection Agency, and the State of Wyoming, in managing and monitoring air resources. For example, air quality data (e.g., atmospheric deposition, or acid rain, monitoring data) will be used to determine actual impacts from air pollutant emission sources, and emission levels will be inventoried and tracked to predict potential impacts, including effects on the Bridger Wilderness Area (which is a Prevention of Significant Deterioration Class I area) and to provide detailed information on proposed emission sources.

Cooperation to develop and apply visibility standards and guidelines is encouraged. BLM will cooperate with Wyoming DEQ on review of air quality regulations which may impact BLM managed activities.

See other resource management prescriptions in this document for other prescriptions and guidance that may apply to air quality management activities.

CULTURAL, NATURAL HISTORY, AND PALEONTOLOGICAL RESOURCE MANAGEMENT

MANAGEMENT OBJECTIVES: The objectives for management of the cultural and paleontological resources are to: 1) expand the opportunities for scientific study, and educational and interpretive uses of cultural and paleontological resources; 2) protect and preserve important cultural and paleontological resources and/or their historic record for future generations; and 3) resolve conflicts between cultural/paleontological resources and other resource uses. Of particular concern are significant sites of historic or prehistoric human habitation, sites demonstrating unique ethnic affiliation, places having traditional cultural significance to Native Americans, and vertebrate fossil localities.

MANAGEMENT ACTIONS: **Sites eligible for or listed on the National Register of Historic Places (NRHP) will be managed for their local, regional, and national significance, under the guidelines of the National Historic Preservation Act (especially sections 106 and 110) and the Archeological Resources Protection Act (ARPA). These sites will be managed to ensure against adverse effects through proper mitigation, if disturbance or destruction is not avoidable. Management prescriptions for sites that are not eligible for the NRHP will be determined on a case-by-case basis according to values involved** (Appendix 6).

An appropriate level of analysis of all BLM undertakings or authorizations will be conducted to determine eligibility of sites for listing on the National Register of Historic Places and to determine potential effects to those historic properties from proposed actions in accordance with the National Historic Preservation Act.

Incidences of potential violation of the Archeological Resources Protection Act will be investigated.

Historic Trails

Congressionally Designated Historic Trails and Associated Historic Sites

The BLM will cooperate with the National Park Service in implementing the *Oregon/Mormon Pioneer National Historic Trails Management Plan.*

The area within 1/4 mile or the visual horizon (whichever is less) of any contributing trail segment will be an avoidance area for surface disturbing activities (Map 3 and Table 2). Developments such as roads, pipelines, and powerlines may be allowed to cross trails in areas where previous disturbance has occurred and the trail segment has lost the characteristics that contribute to its National Register significance.

Motorized vehicles, such as those used for geophysical exploration, or large heavy vehicles such as buses used in recreational tours, or similar activities, could cross and drive down the trails, provided a site specific analysis determines that no adverse effects will occur.

Geophysical activities such as shotholes, blasting, and vibroseis locations could, generally, be allowed, provided they are at least 300 feet from the trail, do not occur directly on the trail, and a site specific analysis determines that visual intrusions and adverse effects will not occur.

No blading will be allowed on any historic trail unless necessary to protect life or property. Historic trails are not available for use as industrial access roads (e.g., oil and gas drilling access roads, or as haul roads for heavy truck traffic).

The Parting-of-the-Ways historical site will be protected by closing it to exploration and development of locatable and salable minerals and pursuing a withdrawal from mineral location. An existing 40-acre mineral location withdrawal in the area will be retained (Table 3). The site will be managed under the prescriptions for management in the *Oregon/Mormon Pioneer National Historic Trails Management Plan.*

The integrity of the Dry Sandy Swales trail segment (about 1 mile) **will be protected. The site will be an exclusion area and will be closed to surface disturbing activities that could adversely affect it** (see discussions in Lands and Realty Management and Minerals Management and Table 3).

The area within 1/4 mile of either side of the Dry Sandy Swales trail segment will be managed in accordance with the *Oregon/Mormon Pioneer National Historic Trails Management Plan.*

Other Historic Trails and Historic Sites

Management of historic roads and trails that are eligible for the NRHP but are not Congressionally designated will generally be the same as for designated trails including a 1/4 mile protective setback on either side of the

trails. These trails may be recommended for listing to the National Register of Historic Places. These trails include the Overland Trail, the Cherokee Trail, and the Point of Rocks to South Pass Road.

LaClede Stage Station and Dug Springs Stage Station on the Overland Trail will be protected as exclusion areas and will be closed to surface disturbing activities that could adversely affect the sites. These sites will be closed to exploration and development of locatable minerals and entry under the land laws, and withdrawals will be pursued. Cultural resource management plans may be written for these sites, and interpretive and visitor management efforts would be allowed as necessary (see discussions in Lands and Realty Management and Minerals Management; see also Table 2 and Table 4).

The Dry Sandy Stage Station and Fort LaClede may be considered for acquisition under a willing seller/willing buyer situation to enhance BLM management of important historic resources. The BLM will not use powers of condemnation to acquire these parcels (Appendix 8-3).

Various Expansion Era (i.e., 1870-1940) roads will be managed according to their historical context. Expansion Era roads are those routes developed after establishment of the Transcontinental Railroad in Wyoming in 1869. Management prescriptions similar to those in the *Oregon/Mormon Pioneer National Historic Trails Management Plan* will be applied, although the 1/4 mile protective setback might not always be applied. Management actions will include development of activity plans with the objective of preserving the historical integrity of significant NRHP contributing segments. Activity plans may include NRHP nomination of those Expansion Era trails that qualify.

The Big Sandy Station, Big Timber Station, Freighter Springs Station, Camp Carmichael, Lander's Camp, and the site of the Simpson's Gulch wagon train burning will be managed for the preservation of cultural and historical values. Site specific resource management actions may be developed in cultural resource management plans for these sites.

Rock Art Sites

Five significant rock art sites and their surrounding viewsheds (within 1/2 mile) will be managed to protect their cultural and historical values. Surface disturbing activities and visual intrusions will be prohibited within these areas if they would adversely affect these values. Management of visitor use at rock art sites may include interpretive signing, fencing, barriers, and other activities.

The Cedar Canyon, LaBarge Bluffs, Sugarloaf, Tolar, and White Mountain rock art sites are exclusion areas, and are closed to surface disturbing activities that could adversely affect rock art resources. These sites are closed to: 1) the location of mining claims and entry under the land laws (withdrawals will be pursued as necessary and the existing Sugarloaf and White Mountain withdrawals will be retained; 2) mineral material sales for sand, gravel, or other types of construction or building materials; 3) the use of explosives and blasting; and 4) the use of fire retardant chemicals containing dyes. Off-road vehicular use, including vehicles used for geophysical exploration activities, are limited to designated roads and trails (see Table 2, Table 3, and Table 4; also see the discussions in Lands and Realty Management, Minerals Management, and Off-Road Vehicle Management).

The vistas surrounding these five significant rock art sites (i.e., the actual area that can be seen from the rock art sites, within 1/2 mile), are avoidance areas for surface disturbing activities and visual intrusions. Most surface disturbing and other activities visible within these vistas will be prohibited if they would adversely affect rock art site values. Surface disturbing and other activities will be analyzed for the effects to the actual area seen from the rock art site for a distance of 1/2 mile surrounding the sites (vista). Some activities within 1/2 mile of the rock art, but not visible from the rock art panels, may be allowed. Other kinds of activities, such as audible disturbances, may not be allowed if they would adversely affect the sacred Native American values at the rock art sites. Site specific activity or implementation plans will be prepared for these sites (see Table 2).

If other significant rock art sites are identified in the future, they will be managed in the same manner as the above five significant sites.

All other rock art sites will be managed on a case-by-case basis according to resource values.

Consideration will be given to applying site specific and time specific use limitations to avoid disturbance of traditional Native American practices at rock art sites or other cultural resource sites.

Other Sites

The Tri-Territory Marker is an exclusion area and is closed to: 1) surface disturbing activities that could adversely affect it; and 2) exploration and development of locatable minerals. A withdrawal will be pursued. The site will be open for consideration of activities such as fencing, interpretive signs, or barriers to ensure protection of the area. A cultural resource activity plan may be prepared for the site if necessary (see discussions in Lands and Realty Management and Minerals Management and Table 2 and Table 4).

Archeological data will be synthesized in the Little Colorado Desert, Greater Nitchie Gulch, and Wamsutter Arch concentrated oil and gas development areas and the areas will be managed with the objective of facilitating surface disturbing or disrupting activities without sacrificing significant archeological values. These areas may be eligible for listing on the NRHP because of their scientific information content (e.g., Criterion D). A programmatic memorandum of agreement would be negotiated with the SHPO and ACHP to achieve this objective. Historic resources that could be eligible for listing for reasons other than their scientific information content (e.g., Criteria A, B, or C) may not be managed according to this prescription.

Playa Lake areas with high cultural site density would be managed as historic districts. Management prescriptions for surface disturbing activities in playa lake areas will be developed on a case-by-case basis. A programmatic memoranda of agreement for data recovery with the SHPO and ACHP would also be pursued. Each playa may be managed as an NRHP eligible historic district (Blue Forest, Blue Point, and Adobe Town Rim).

The Pine Springs ACEC (6,030 acres) **is closed to surface disturbing activities. About 2,000 acres in the area will be closed to exploration and development of locatable minerals and entry under the land laws. Withdrawal from these activities will be pursued. The existing 90-acre withdrawal will be retained.** Cultural resource management plans may be written for the site, and interpretive and visitor management efforts may be allowed as necessary. (See also Pine Springs ACEC, Lands and Realty Management and Minerals Management discussions, Table 3 and Table 4.) (Surface disturbing activities may include activities associated with mineral exploration and development, construction of roads, pipelines, powerlines, mineral material sales, etc.)

The Eden-Farson, Finley, Krmpotich, and Morgan archaeological sites, and similar sites identified in the future, will be managed to protect their important scientific values. No public interpretive efforts will be initiated at these sites. These sites will be managed according to Sections 106 and 110 of the NHPA and their locations will be kept confidential pursuant to NHPA regulations. Periodic law enforcement patrol and other efforts will be instituted to ensure that the ARPA is enforced and that these sites are protected.

All known human burial sites will be protected regardless of their ethnic affiliation. Management of Native American burial sites will take into account recommendations from appropriate tribes. Data recovery will not be the preferred method for mitigation of adverse effects to any burial location.

Known burial areas will be closed to surface disturbing activities that could adversely affect them (see discussions in Lands and Realty Management and Minerals Management and Table 2).

Management emphasis for the prehistoric quarry site will be for scientific data recovery. The prehistoric quarry site will be protected by closing it to mineral location and pursuing a withdrawal. The site is an exclusion area and is closed to surface disturbing activities that could adversely affect it. Only those surface disturbing activities related to data recovery would be allowed (see discussions in Lands and Realty Management and Minerals Management and Table 2 and Table 4).

North and South Table Mountains (the Bozovich Site complex) **will be managed to preserve cultural values within standard Section 106 and 110 NHPA compliance. The area will be closed to surface disturbing activities that could adversely affect the cultural sites, but will be open for consideration of activities such as fencing, interpretive signs, or barriers to ensure protection of the area.** Appropriate scientific study of sites in this area will be a priority within the resource area cultural program (see discussions in Lands and Realty Management and Minerals Management and Table 2).

Other Cultural and Paleontological Management Actions

Consultation with appropriate Native American tribes concerning areas of concern to them for traditional cultural purposes will be in accordance with the American Indian Religious Freedom Act and BLM Manual 8160-1 Handbook. Native American consultation would occur within the context of specific development proposals, but will also be an ongoing process between BLM and affected Indian tribes and traditional cultural leaders.

Interpretive materials will be prepared describing the cultural resources of the area, their significance, and BLM's responsibility to manage them. Historical aspects of BLM programs will be interpreted as appropriate for public appreciation.

Exchanges for acquisition and cooperative agreements will be pursued to enhance management of cultural resources (Appendix 8-3).

Management needs for other cultural sites will be determined on a case-by-case basis according to their resource values.

Significant paleontological resources will be managed for their scientific and educational values and in accordance with 43 CFR 3600, 43 CFR 3622, and 43 CFR 8365.

Collecting of vertebrate fossils may be allowed with written authorization which may be issued only to an academic, scientific, governmental, or other qualified institution or individual. Collection of common invertebrate fossils and petrified wood for hobby purposes is allowed on public lands and is regulated under 43 CFR 3600, 43 CFR 3622, and 43 CFR 8365. A site protection plan may be written and implemented for the Farson Fossil Fish Beds.

Surface disturbing activities that affect known vertebrate fossil localities will be considered in site specific analyses and potential adverse effects will be mitigated. At the Area Manager's discretion, mitigating measures may be required for surface disturbing activities occurring in areas having a reasonable chance for the occurrence of scientifically significant fossils. Mitigation measures may include surface inventory, construction monitoring, excavation/salvage, or other measures considered to be reasonable and appropriate by the Area Manager. Operators are required to report any paleontological resources discovered during the course of operations.

The Steamboat Mountain and Boars Tusk-Killpecker Sand Dunes areas will be managed to protect the unique geological and ecological features and to provide for public interpretation of these features. The road around Boars Tusk is closed.

See other resource management prescriptions in this document for other prescriptions and guidance that may apply to cultural, natural history, and paleontological management activities. See also Special Management Areas (South Pass Historic Landscape ACEC, Pine Springs ACEC, Crookston Ranch (within the Greater Sand Dunes ACEC), White Mountain Petroglyphs ACEC, and Cedar Canyon ACEC).

FIRE MANAGEMENT

MANAGEMENT OBJECTIVE: **The objectives for fire management are to: 1) use prescribed fire as a management tool to help meet multiple use resource management goals; and 2) provide cost-effective protection from wildfire to life, property, and resource values.**

MANAGEMENT ACTIONS: **Wildfire suppression will emphasize appropriate management response. Immediate control actions will be used only in cases of arson, direct threat to public safety, or a strong potential to threaten structural property.**

Fire suppression actions will be based on achieving the most efficient control and allowing historical acres burned to increase. Activity plans will be developed for designated fire management areas defining specific parameters for all fire occurrence (Figure 2 and Map 4).

Ambient air quality standards will be maintained during prescribed fire operations.

Heavy equipment or actions that will cause surface disturbance will be used only after a site specific analysis has been performed and approved. Activities that cause surface disturbance will be considered on a case-by-case basis.

Priority areas for wildfire suppression will be identified in fire management activity plans for the planning area.

A site specific analysis will be prepared for sensitive areas such as special status plant species, cultural sites, historic trails, and ACECs to determine the appropriate suppression activity that will be acceptable.

Use of chemical fire suppression agents is prohibited in rock art sites. Generally, use of chemical fire suppression agents is prohibited in special management areas, unless or until an wildland fire situation analysis is completed or activity plan for the special management areas identifies chemical suppression agents as an allowable use.

Wildfires occurring in forested areas will be appropriately suppressed in accord with resource values threatened, as determined on a case-by-case basis.

Wildfires occurring in or directly threatening a developed or active timber sale will receive priority suppression control action. Non commercial timber stands may be included in prescribed fire activities. Standard management practices such as pile and broadcast burning may be permitted in all forested areas.

See other resource management prescriptions in this document for other prescriptions and guidance that may apply to fire resource management activities.

FORESTS AND WOODLANDS MANAGEMENT

MANAGEMENT OBJECTIVES: **The objectives for management of forests and woodlands are to: 1) provide for healthy forest resources and primarily to meet multiple resource objectives (i.e., improved watershed, soils, recreation, and wildlife habitat values); 2) maintain and enhance biological diversity; 3) provide a long-range view of desired plant community concepts at the landscape level; 4) identify old growth areas; and 5) in commercial forests, provide for production of forest products in balance with these other resource management objectives. (Long-term stand structure development will be an integral part of all forest management.)**

Noncommercial forest lands (woodlands) will be managed to optimize cover and enhance habitat for wildlife, protect soil and watershed values, and complement recreation uses.

MANAGEMENT ACTIONS: **The planning area is divided into 4 timber compartments for timber management: Wind River Front, Pine Mountain, Little Mountain, and Hickey Mountain-Table Mountain** (Map 5).

Hickey Mountain-Table Mountain will be managed as described in the woodland prescriptions.

The Wind River Front is a restricted forest management area where forest resources will be managed for commercial forest values, to improve the health, vigor, and diversity of forest stands, and still give full consideration to other resource values such as watershed, wildlife, minerals, recreation, and scenic values.

Pine and Little Mountain areas will be managed to enhance other resources, and activities will be designed to benefit these other resource uses. Priority for timber harvesting will be given to mature, decadent, and diseased trees (Table 5).

Where possible, and within RMP objectives, timber compartments (commercial and woodland forest lands) will be managed to meet the local demand for minor forest products (e.g., fuelwood, posts and poles, wildlings, and Christmas trees).

The major consideration for timber harvesting in the Wind River Front is to improve the condition of the forest stand with emphasis on meeting wildlife habitat needs. The major consideration for harvesting in other areas is to provide watershed stability and habitat for wildlife needs. Soil, watershed, and wildlife cover are important considerations. Timber stand conditions and management considerations will dictate harvest methods and size and shape of units.

Cutting methods include, but are not limited to, clearcutting, individual tree marking, shelter wood, thinning, and group selection. Individual clearcut units will not exceed 25 acres in size unless a site specific analysis indicates RMP resource objectives will be met with a larger clearcut unit size. All clearcut design and planning will consider other resource values such as escape cover for wildlife. Clearcut unit size and shape will be designed to maximize natural regeneration and edge effect for wildlife.

Clearcutting is not allowed within 100 feet of drainages or standing and flowing waters. Other logging activity, such as thinning or cable logging, could occur within the 100-foot zone if other resource values will not be adversely affected.

Timber harvesting activities will be restricted seasonally, as appropriate, to protect big game wintering and parturition activity, grouse (sage, sharptail, etc.) strutting and nesting, and raptor nesting activity.

Approximately 1,436 acres of commercial timber within big game winter ranges are closed to logging activity usually from November 15 to April 30. If the logging unit encompasses big game parturition habitats, the area is closed to timber harvest activities usually from May 1 through June 30. There will be no logging activity within grouse nesting sites and raptor nesting sites usually from February 1 to July 31 (see Minerals Management). Exceptions may be approved if conditions described in Appendix 7 apply.

Timber harvest activities will be designed to protect water quality.

A 500-foot buffer from standing or flowing water, flood plains, and/or riparian/wetland areas will be applied to surface disturbing activities (e.g., roads), unless impacts to soils, watershed, water quality, and fisheries can be mitigated. No surface disturbance is allowed within 100 feet of the edge of the inner gorge of intermittent and large ephemeral drainages, without an approved plan to mitigate impacts to water quality. Linear crossings will be considered on a case-by-case basis (see Watershed section).

Logging operations on slopes steeper than 45 percent will be limited to technologically, environmentally, and economically acceptable methods such as cable yarding and/or horse skidding.

Slash disposal will be tailored to the individual harvest unit to promote reforestation, minimize erosion, and allow big game movement. Methods could include broadcast burning, piling and burning, lopping and scattering, chipping, and roller chopping.

Stand replacement of harvested areas or areas denuded by natural causes will be revegetated with tree seedlings within 5 to 15 years (fully stocked).

Commercial conifer stands will be managed under the guidelines for suppression of wildfires. Aspen and juniper stands will be open to prescribed fire activities to enhance watershed and wildlife values.

Habitat fragmentation will be prevented if it has a negative ecological effect.

Special management areas (old growth, scientific research areas) will be identified and appropriate management incorporated into activity plans.

Woodland Forests - Juniper, Aspen, and Limber Pine

Woodland forest areas will be managed using silvicultural practices that promote stand viability. Treatments could include thinning, harvesting, chaining, and burning. The vegetative material resulting from these treatments will normally be sold through public demand sales.

Woodland forest acreage will be maintained. Treatments may be implemented that influence successional stages, but such treatments will not permanently convert the areas to another vegetation type. Old aspen stands may be replaced by stands of sprouting aspen by various treatment methods (e.g., burning). Old decadent trees may be left standing or downed to provide cover or other habitat for wildlife (e.g., Animal Inn), and juniper stands may be replaced where they are encroaching into other vegetation types.

Silvicultural treatments in mature timber stands will be designed to improve wildlife habitat and watershed condition, i.e., create small openings to provide forage for wildlife and accumulate snow drifts to increase moisture.

Cottonwood trees are not available for any harvesting.

Firewood cutting for camping purposes will be limited to designated areas (this mainly applies to the area around developed recreation sites).

See other resource management prescriptions in this document for other prescriptions and guidance that may apply to forest resource management activities.

HAZARDOUS MATERIALS AND OTHER HAZARDS

MANAGEMENT OBJECTIVES. **The objectives for management of hazardous materials and waste are to: 1) protect public and environmental health and safety on BLM-administered public lands; 2) comply with applicable federal and state laws; 3) prevent waste contamination due to any BLM-authorized actions; 4) minimize federal exposure to the liabilities associated with waste management on public lands; and 5) integrate hazardous materials and waste management policies and controls into all BLM programs.**

MANAGEMENT ACTIONS. **For BLM-authorized activities that involve hazardous materials or their use, precautionary measures will be used to guard against releases or spills into the environment. If safety hazards are identified as a result of hazardous waste spills on BLM-administered public lands, the BLM will provide appropriate warnings.**

Sale or transfer of public lands on which storage or disposal of hazardous substances has been known to occur will require public notification of the type and quantity of these substances.

BLM-administered public land sites contaminated with hazardous wastes will be reported, secured, and cleaned up according to applicable federal and state regulations and contingency plans. Parties responsible for contamination will be liable for cleanup and resource damage costs, as prescribed in federal and state regulations.

Certain wastes generated by the oil and gas industry are exempt from regulation as hazardous wastes. These exemptions are too complex in detail to be listed here but are on file in BLM offices. Pits containing produced water or drilling fluids at well sites or other locations may be tested for TCLP constituents if nonexempt, hazardous wastes are indicated. Costs for testing and proper disposal will be borne by the operator if analysis confirms the presence of a nonexempt waste.

See other resource management prescriptions in this document for other prescriptions and guidance that may apply to hazardous materials management activities.

LANDS AND REALTY MANAGEMENT

MANAGEMENT OBJECTIVES. **The objectives for the management of the land and realty program are to: 1) manage the public lands to support the goals and objectives of other resource programs; 2) respond to public demand for land use authorizations; and 3) acquire administrative and public access where necessary.**

MANAGEMENT ACTIONS. Lands and realty management actions are divided into five groups: land ownership adjustments, utility/transportation systems, withdrawals/classifications, desert land entries, and access.

Land Ownership Adjustment

Public lands will be retained in federal ownership with the exception of those lands which have potential for disposal. Lands currently identified as meeting the FLPMA disposal criteria are described in Appendix 8-1. The preferred method of disposal will be by land exchanges. Other lands will be considered for disposal on a case-by-case basis (see Map 6). All disposals must conform to the criteria listed in Appendix 8-2. The disposal of these lands and any lands identified in the future must allow for the acquisition of important resource lands or meet other important public objectives such as community expansion and economic development. Public lands may have further potential for disposal because they are isolated and would be difficult to manage.

Lands will be provided to government entities for solid waste disposal through sale, exchange, or Recreation and Public Purposes (R&PP) patent. Government entities will be encouraged to purchase unused portions of sanitary landfills currently authorized under Recreation and Public Purposes leases. The BLM will aid in finding suitable landfill sites on public land (see the Hazardous Materials Management section).

Sweetwater County School District No. 1 will be given the opportunity to acquire Lots 3, 4, 5, Section 28, T. 19 N., R. 105 W., (124 acres) for school purposes prior to any other type of disposal.

Acquisition of lands will be considered to facilitate various resource management objectives. The preferred method for acquisition will be through exchange. Land exchanges are considered discretionary and voluntary real estate transactions between parties involved. Lands considered will include private/State lands along upper stream reaches of the Big Sandy River, State inholdings in WSAs, other lands with important resource values. Consideration will be given to exchanges for state lands in special management areas such as ACECs. In those instances where a purchase or exchange is not feasible, attempts will be made to enter into cooperative agreements to protect cultural/historical sites, threatened and endangered species habitat, and riparian habitat. Appendix 8-3 describes proposed acquisitions (about 28,000 acres) that could be made by purchase/exchange or through cooperative agreement to support resource needs.

Unauthorized uses within the planning area will be resolved. If circumstances warrant, the issuance of a permit, lease, or right-of-way authorizing the use could occur as a means of resolving trespass. Disposal of the parcel through sale or exchange may be considered to resolve long standing trespasses.

Utility/Transportation Systems

Public lands will be made available throughout the planning area for rights-of-way, permits, and leases.

The planning area, with the exception of defined exclusion and avoidance areas, will be open to the consideration of granting rights-of-way (see Special Management Area section and Table 2).

Right-of-way corridors will not be designated due to the predominate checkerboard private land pattern in the planning area.

Areas are designated for avoidance or exclusion to rights-of-way where these uses are incompatible with management of sensitive resources and/or would have unacceptable impacts. Rights-of-way and avoidance areas are described in Table 2, and shown on Map 7 and Map 8.

An avoidance area for major utility lines will be located along I-80 between Point of Rocks and Green River. Due to topography, congestion in the concentration area, and surface mining, this area will be restricted to local distribution service lines. All other utilities will be located, if possible, in the northern or southern east-west windows.

Areas designated as utility windows, rights-of-way concentration areas, and existing communication sites will be preferred locations for future grants. Five windows have been identified: 2 east-west, 3 north-south. Other areas will be considered for rights-of-way on a case-by-case basis (Map 9).

Windows 1/2 mile in width have been identified for the placement of utilities. The northern east- west window will be for underground facilities only, and the southern east-west window will be for both above and below ground facilities. A 1/2 mile wide north-south window on the west side of Flaming Gorge, a window south along Highway 430, and a north-south window along the east side of Flaming Gorge have been identified for above and below ground utilities.

The ROD and *Federal Register* notice for the RMP will meet the criteria for public notification for linear or site rights-of-way within floodplains as required by BLM Manual 7221, except for those associated with perennial streams. The BLM will solicit public comment on site facilities or major linear rights-of-way along perennial streams unless another agency (federal, state, or local) already had solicited such comments.

The Aspen Mountain Communications Site Plan will govern development of sites at this location. Sites at other locations will be approved on a case-by-case basis. Sharing of sites will be advocated, where possible.

Withdrawals/Classifications

Withdrawals and classifications will be processed to protect important resource values (Table 4).

Withdrawals which no longer serve the purpose for which they were established will be revoked (Map 10 and Map 11).

Prior to revocation, withdrawn lands will be reviewed to determine if any other resource values require withdrawal protection (Table 3).

The Multiple Use Management Classification as it affects public lands in the planning area (200 acres) **will be revoked.**

An additional 63 acres inundated by water under Flaming Gorge Reservoir may be withdrawn for the Bureau of Reclamation.

Public Water Reserves will be terminated where no longer needed, and acquired where the need exists (Map 11).

The BLM Rock Springs Administrative Site withdrawal will be retained (Table 3).

Desert Land Entries

No BLM-administered public lands within the planning area are available for agricultural entry under Desert Land Entry (43 CFR 2520) due to one or more of the following factors: unsuitable soils, salinity contributions into the Colorado River System, lack of water supplies, rugged topography, lack of access, small parcel size, and presence of sensitive resources.

Access

Access to public lands will be provided throughout the planning area. Where necessary and consistent with ORV designations, access will be closed, or restricted in specific areas to protect public health and safety, and to protect significant resource values (see ORV Management discussion). Easements will be pursued where practical, to provide access to public lands for recreational, wildlife, range, cultural/historical, mineral, special management area, and other resource management needs (about 300 acres) (Table 6, Map 12, and Appendix 8-3).

See other resource management prescriptions in this document for other prescriptions and guidance that may apply to lands and realty management activities.

LIVESTOCK GRAZING MANAGEMENT

MANAGEMENT OBJECTIVE: **The objectives for livestock grazing management are to: 1) improve forage production and ecological conditions for the benefit of livestock use, wildlife habitat, watershed, and riparian areas; 2) maintain, improve, or restore riparian habitat to enhance forage conditions, wildlife habitat, and stream quality; and 3) achieve proper functioning condition or better on riparian areas (this is the first priority for vegetation management) (Appendix 9-3).**

MANAGEMENT ACTIONS: **Authorized grazing use will not exceed the recognized permitted active AUMs (318,647 AUMs). Public lands will be made available for livestock grazing while considering the needs of other resources.**

The kinds and seasons of livestock grazing use will continue to be licensed until monitoring, negotiation, consultation, or a change in resource conditions indicate that a modification is needed. Monitoring will be continued or initiated following adjustments in grazing use to assure that grazing and other management objectives are being met. Allotments are placed in one of three selective management categories identified as improve (I), maintain (M), or custodial (C). Livestock grazing will be managed on 31 I category allotments, 18 M category, and 29 C category Allotments (Appendix 9-1), and one allotment may not be categorized.

The authorized active livestock use and existing forage reservations for wildlife and wild horses will be maintained. Historic levels and types of rangeland monitoring will continue and additional levels and types of monitoring or evaluation may be initiated, as necessary, to determine any need for forage allocation adjustment.

Interdisciplinary monitoring studies will be conducted at a level sufficient to detect changes in grazing use, trend, and range conditions and to determine if vegetation objectives will be met for all affected resource values and uses

(livestock grazing, wild horses, wildlife, watershed, etc.) (see Appendix 9-4).

The Palmer Draw area (970 acres) and special management exclosures are closed to livestock grazing. AUMs currently authorized in these areas will be suspended.

All developed and some semi-developed recreation areas are closed to livestock grazing and will be fenced to reduce conflicts between uses.

Authorized grazing preference may be reduced in areas with excessive soil erosion and poor range condition, if allotment evaluation warrants such a change, or to provide forage for wildlife, wild horse, and recreational uses.

Management will be implemented in "I" category allotments to maintain or improve wild horse, wildlife, watershed, vegetation, and soils resource conditions. Management in "M" category allotments will be directed toward maintenance of resource conditions. Management in "C" allotments will be directed towards monitoring resource conditions.

All AMPs will incorporate desired plant community objectives and riparian objectives where such resources exist. Grazing systems will be designed to maintain or improve plant diversity and will be implemented on all I category allotments. AMPs will be written or modified for I category allotments. AMPs for M category allotments will not be modified unless monitoring and evaluation indicate a change in management is needed or riparian objectives need to be included. Riparian objectives will also be developed for C category allotments where riparian values exist (Appendix 9-3).

Management actions identified in the Rangeland Program Summary Update (1990) will continue to be implemented, as appropriate, through site specific activity planning.

Cooperative allotment management plans prepared in coordination with other agencies, such as the Forest Service and Natural Resource Conservation Service, will be consistent with this land use plan.

Site specific analyses will be conducted where necessary to help determine how to alleviate conflicts between wildlife use, livestock grazing, and development activities. A site specific plan that considers wildlife needs will be developed for the Pine Canyon, Long Canyon, Cedar Canyon, and Table Mountain area to alleviate conflicts between oil and gas production and exploration, wildlife needs, and livestock grazing.

Unallotted forage on public lands will be appropriately allocated to wildlife, wild horses, livestock grazing, and for watershed improvement on a case-by-case basis.

Salt or mineral supplements for livestock are prohibited within 500 feet of water, wetlands, or riparian areas unless analysis shows that watershed, riparian, and wildlife objectives and values would not be adversely affected. Salt or mineral supplements are prohibited on areas inhabited by special status plant species or other sensitive areas.

Range improvements will be directed at resolving or reducing resource concerns, improvement of wetland/riparian areas, and overall improvement of vegetation/ground cover (see Vegetation section). New range improvements may be implemented in "I" and "M" category allotments. Maintenance of range improvements will be required in accordance with the BLM Rangeland Improvement Policy.

Water sources may be developed in crucial wildlife winter ranges only when consistent with wildlife habitat needs. Such sources will be designed to benefit livestock, wild horses, and wildlife. Alternative water supplies or facilities for livestock may be provided to relieve livestock grazing pressure along stream bottoms and improve livestock distribution.

Construction of fences may be considered to meet management objectives. Fence construction in big game use areas and known migration routes will require site specific analysis. Fences on public lands will be removed, modified, or reconstructed if documented wildlife or wild horse conflicts occur. Introduction of herder control will be encouraged as an alternative to fencing. All constructed fences will follow construction standards and design (BLM Manual 1740) and will be located and designed to not impede wild horse movement.

Combining and splitting allotments will be considered when such action will help meet RMP objectives (e.g., the Henrys Fork allotment could be split into 3 allotments and managed under the guidelines of revised AMPs). The Cottonwood Creek and Antelope Wash allotments could be consolidated into one two-pasture allotment and managed under the guidelines of a new AMP.

Requests for conversions of kinds of livestock and changes in seasons of grazing use will be considered on a case-by-case basis through an environmental analysis. Such changes will be consistent with wildlife, wild horse, watershed, and riparian objectives. Special status plant species and vegetation objectives must be considered before allowing livestock conversions, and all conversions will be consistent with available forage.

Noxious weed infestations will be controlled through livestock management or by environmentally acceptable mechanical, chemical, or biological means. BLM will cooperate and coordinate with County weed and pest districts (Appendix 9-2).

Stock driveway withdrawals numbers 4, 21, and 23 will be revoked (Table 3).

See other resource management prescriptions in this document for other prescriptions and guidance that may apply to livestock grazing management activities.

MINERALS MANAGEMENT

MANAGEMENT OBJECTIVE: The objective for management of the BLM-administered Federal minerals is to maintain or enhance opportunities for mineral exploration and development, while protecting other resource values.

The minerals program is discussed by leasable minerals, mineral materials, locatable minerals, and geophysical activity.

Leasable Minerals

Public lands within the checkerboard area are open to mineral leasing and development (to promote mineral resource recovery) with appropriate mitigation measures to be applied on a case-by-case basis.

Fluid Leasables (Oil and Gas)

MANAGEMENT OBJECTIVE: The objective for management of oil and gas resources is to provide for leasing, exploration, and development of oil and gas, while protecting other values.

MANAGEMENT ACTIONS: **BLM-administered public lands not specifically closed are open to consideration of oil and gas leasing. Public lands closed to leasing include lands within the Red Creek ACEC and portions of the Wind River Front** (Map 13).

The remainder of the public lands in the planning area are open to consideration for oil and gas leasing with appropriate mitigation measures. Table 7 provides information on which restrictions apply to particular actions and land uses to protect resource values in certain areas. This table provides guidelines for all surface disturbing activities, not just those related to oil and gas exploration and development activities.

Where maximum protection of resources is necessary, a No Surface Occupancy requirement will be imposed. Areas identified as needing maximum protection are shown on Table 7 and Map 14. Additional areas may be identified through site specific environmental analysis and activity planning.

Timing limitations (seasonal restrictions) will be applied when activities occur during crucial periods or would adversely affect crucial or sensitive resources. Such resources include, but are not limited to, soils during wet and muddy periods, crucial wildlife seasonal use areas, and raptor nesting areas. Exceptions to seasonal restrictions may be granted if the criteria in Appendix 7 apply (see Table 8, Map 15, Map 16, and Map 17).

Where controlled use or restrictions on specific activities are needed but do not necessarily exclude activities, controlled surface use or surface disturbance restrictions will be designed to protect those resources. These restrictions will be placed on areas where resources could be avoided or adverse effects could be mitigated (Table 7 and Map 18).

Development actions will be analyzed on a case-by-case basis to identify mitigation needs to meet RMP objectives, provide for resource protection, and provide for logical development. Limitations on the amount, sequence, timing, or level of development may occur. This may result in transportation planning and in limitations in the number of roads and drill pads, or deferring development in some areas until other areas have been restored to previous uses (Appendix 5-1 and Appendix 5-2).

Prior to issuing Federal mineral leases in areas around or adjacent to local communities or occupied dwellings, community and county governments will be consulted to obtain input and direction to protect public health and safety. Unleased lands in such areas may be offered for lease with an NSO stipulation or, if the areas are too large for directional drilling, they may remain unleased.

Leases may also be issued with other appropriate mitigation requirements necessary to protect public health and safety and to allow for urban expansion. These NSO areas may only be accessed through directional drilling. The NSO stipulation will be used to facilitate drainage problems or needs, under the assumption that industry is the best judge of whether technology will enable access to the oil and gas resources under the terms of the lease.

Leasing with an NSO stipulation could become necessary for several reasons. For example, if the area is characterized by occupied dwellings and the potential for additional urban expansion, if the area is surrounded by the scenic steep slopes of White Mountain, Wilkins Peak, and other similar topographic features. Any disturbance in the expanding urban areas or on the steep slopes, can affect the potential for expansion, public health and safety, watershed values, and the scenic resources. Likelihood of success in producing gas varies from low to high, which means that some development will likely occur and production facilities will be necessary along with year-round access. Any requests for relief from these requirements will require an environmental analysis on the action being considered and the RMP may have to be amended.

To the extent that laws and regulations allow, the areas closed to oil and gas leasing will remain closed to leasing of oil and gas unless drainage results in a loss of Federal minerals through production on adjacent private or State lands (drainage). At such time, the no lease prescription will be re-evaluated. Actions such as drainage agreements will also be considered.

Fluid Leasables (Geothermal)

MANAGEMENT OBJECTIVE: **The resource management objective is to provide opportunities for geothermal exploration and development.**

MANAGEMENT ACTIONS: **Geothermal resources are open to leasing consideration in areas that are open to oil and gas leasing consideration. Areas closed to oil and gas leasing are also closed to geothermal leasing.**

Exploration and development of geothermal resources are subject to application of mitigation requirements for surface disturbing activities and other activities in the same manner as they are applied to oil and gas exploration and development activities.

Solid Leasables (Coal)

MANAGEMENT OBJECTIVE. **The objective for management of the federal coal resources in the planning area is to provide for both short- and long-range development of federal coal, in an orderly and timely manner, consistent with the policies of the federal coal management program, environmental integrity, national energy needs, and related demands.**

MANAGEMENT ACTIONS. **With appropriate limitations and mitigation requirements for the protection of other resource values, all BLM-administered public lands and Federal coal lands in the Green River planning area, except for those lands identified as closed, are open to coal resource inventory and exploration to help identify coal resources and their development potential** (Table 9).

The North Fork Vermillion Creek drainage and the City of Rock Springs Expansion Area are closed to further consideration for Federal coal leasing and development (see Appendix 3).

Federal coal lands within the Coal Occurrence and Development Potential area (about 422,000 acres) **are open to further consideration for coal leasing and development (i.e., new competitive leasing, emergency leasing, lease modifications, and exchange proposals, under the Federal Coal Management Program) with appropriate and necessary conditions and requirements for protection of other land and resource values and uses** (see Map 19 and Table 10).

The Coal Occurrence and Development Potential area is subject to continued field investigations, studies, and evaluations to determine if certain methods of coal mining can occur without having a significant long-term impact on wildlife, cultural, and watershed resources, in general, and on threatened and endangered plant and animal species and their essential habitats. Such investigations, studies and evaluations may be conducted on an as-needed or case-by-case basis in reviewing individual coal leasing or development proposals (e.g., mine plans) or, if opportunities or needs arise, area-wide studies may be conducted. These studies include keeping resource databases current (e.g., where existing raptor nests become abandoned or where new raptor nests become established, etc.), analysis of effects to wildlife and threatened and endangered species habitats and populations, and the cumulative effects of mining operations and other activities in the area. Consultation with other agencies (e.g., USFWS, WGFD, etc.), interested parties, and with industry will occur as needed or required.

Big game crucial winter ranges and birthing areas are open to further consideration for federal coal leasing and development with a provision for maintaining a balance between coal leasing and development, and adequate crucial winter range and birthing area habitats to prevent significant adverse impacts to important big game species. This will be accomplished through controlled timing and sequencing of Federal coal leasing and development in these areas. For example, satisfactory abandonment and adequate reclamation of mined lands in big game crucial winter ranges and birthing areas will be required before additional Federal coal leasing and development is initiated in the same crucial winter ranges and birthing areas.

The greater Cooper Ridge and Elk Butte areas are open to further consideration for Federal coal leasing and development, pending further study (about 25,368 acres). This study is for the purpose of defining the extent of any deer and antelope crucial winter range in the area, and for determining if certain methods of coal mining can occur in the area without having a significant long-term impact on the deer and antelope herds.

For the protection of important rock art sites, other important cultural resource values, and important geologic and ecologic features, Federal coal lands with these important values are open to consideration for further leasing and development by subsurface mining methods only. Any Federal coal leasing and development on these lands will include a no surface occupancy requirement for any related ancillary facilities, and surface disturbing activities will be prohibited (about 13,340 acres of Federal coal lands). (Refer to the Natural Corrals, Cedar Canyon, Greater Sand Dunes, and Steamboat Mountain portions of the Special Management Area section for more details.)

In general, cultural sites on Federal coal lands are avoidance areas for surface disturbing activities. As avoidance areas, cultural sites are open to consideration for coal leasing and development with appropriate measures to protect these resources. Surface disturbing activities associated with such actions as surface coal mining methods, exploration drilling, construction and location of ancillary facilities, roads and other types of rights-of-way, etc., will be avoided, if possible. In cases where it is not possible to avoid these areas, intensive mitigation of the surface disturbing activities (primarily excavation and other data recovery measures) will be emphasized. If necessary, appropriate buffer zones will be established to protect sites that are listed or eligible for listing on the NRHP. Data recovery measures will be implemented in the context of an NRHP district, if appropriate, to maximize efficiency of data recovery efforts.

Active grouse leks (sage and sharptail grouse) and the area within a 1/4 mile radius of active leks are avoidance areas for surface disturbing activities and are open to consideration for Federal coal leasing and development with the following requirements:

Surface disturbing activities associated with such actions as surface coal mining methods, exploration drilling, construction of roads and other types of rights-of-way, etc., will be avoided in these areas, if possible. In cases where it is not possible to avoid these areas, intensive mitigation of the surface disturbing activities will be emphasized.

Permanent and high profile structures, such as buildings, overhead powerlines, other types of ancillary facilities, etc., are prohibited in these areas.

During the grouse mating season, surface uses and activities are prohibited between the hours of 6:00 p.m. and 9:00 a.m., within a 1/2 mile radius of active leks (i.e., those leks occupied by mating birds).

Grouse nesting areas (sage or sharptail grouse) are open to consideration for Federal coal leasing and development, with certain requirements. Exploration activities and ancillary facilities will be allowed with the following requirement:

If an occupied grouse nest may be adversely affected by coal mining and related surface disturbing activities, surface uses and activities will be delayed in the area of influence for the nest until nesting is completed.

Wetland and riparian areas on Federal coal lands are avoidance areas for surface disturbing activities and are open to consideration for coal leasing and development with the following requirements:

Surface disturbing activities associated with such actions as surface coal mining methods, exploration drilling, construction of ancillary facilities (roads and other types of rights-of-way, etc.) will be avoided in these areas, if possible. In cases where it is not possible to avoid these areas, intensive mitigation of the surface disturbing activities will be required.

Areas of BLM-Administered Public Land Surface Overlying State-Owned Coal

BLM-administered public land surface overlaying state-owned coal are open to further consideration for coal development with appropriate and necessary conditions and requirements for protection of the public land surface and surface resource values and uses, including big game crucial winter range, grouse leks, cultural values, geologic features, and rights-of-way (about 28,000 acres).

These lands are subject to continued field investigations, studies, and evaluations to determine if certain methods of coal mining can occur without having a significant long-term impact on wildlife, in general, and on threatened and endangered plant and animal species and their essential habitats. Such investigations, studies, and evaluations may be conducted on an as-needed or case-by-case basis in reviewing individual coal leasing and development proposals by the state or, if opportunities or needs arise, area-wide studies may be conducted. These studies include keeping resource databases current (e.g., where raptor nests become abandoned or where new raptor nests become established), analysis of effects to wildlife and threatened and endangered species habitats and populations, and the cumulative effects of mining operations and other activities in the area. Consultation with other agencies (e.g., USFWS, WGFD, etc.), special interest groups, and with industry will occur as needed or required.

About 3,000 of these acres are closed to surface mining activities to protect cultural and geologic values. These will be no surface occupancy and very limited surface occupancy areas.

Preference Right (Coal) Lease Applications (PRLAs)

Processing of competitive lease applications in the Beans Spring area will be considered, with special attention given to those sensitive value areas identified through the coal screening process.

The Beans Spring coal PRLA has been canceled and there are no longer any PRLAs in the planning area. Thus, the Federal coal lands involved with the Beans Spring area are now competitive Federal coal lands and will be managed as such, and in the same manner as the Federal coal lands immediately adjacent to them.

Solid Leasables (Sodium/Trona)

MANAGEMENT OBJECTIVE: **The objective for management of the Federal sodium (trona) resource is to provide for both short- and long-range development of federal sodium (trona) in an orderly and timely manner.**

MANAGEMENT ACTIONS: **The known sodium leasing area is open to exploration and consideration for leasing and development, but is closed to prospecting permits** (Map 19).

The remainder of the planning area is open to sodium prospecting except for areas that are closed to mineral leasing, surface mining, or mechanical prospecting type activities (areas closed to drilling, off-road vehicle use, and explosive charges) (Table 9).

Sodium (trona) leasing will be considered on a case-by-case basis, and is subject to the same conditional requirement as oil and gas and coal, and the general management direction applied in this RMP.

Other Leasables

MANAGEMENT OBJECTIVE: **The objective for management of other leasable minerals is to provide opportunities for their leasing, exploration, and development.**

MANAGEMENT ACTIONS: **Leasing of other leasable minerals will be considered on a case-by-case basis and is subject to appropriate mitigation.**

Saleable Minerals

MANAGEMENT OBJECTIVE: **The objective for management of saleable minerals (mineral materials, e.g., sand, gravel)) is to provide mineral materials in convenient locations for users while protecting other resources.**

MANAGEMENT ACTIONS: **Most of the planning area is open to consideration of mineral material sales and activity except for areas where such activity would cause unacceptable impacts.** Areas closed to mineral material sales are shown on Table 11.

As sale areas, community pits, and localized common use areas become established to provide for sales of mineral materials, such as moss rock and sand, their use and management will be in conformance with other resource objectives. Adequate mine and reclamation plans for use areas will be developed. Requests from users for mineral material will be evaluated on a case-by-case basis.

Establishment of mineral material sites will be evaluated on a case-by-case basis.

No topsoil sale areas will be established.

Locatable Minerals

MANAGEMENT OBJECTIVE: **The objective for management of locatable minerals is to provide opportunities to explore, locate, and develop mining claims while protecting other resource values.**

MANAGEMENT ACTIONS: **With the exception of lands withdrawn from mineral location, the planning area is open to filing of mining claims and exploration for and development of locatable minerals.**

The mineral classification withdrawals in the RMP planning area (phosphate, coal, oil shale) will be revoked. In some areas, these classification withdrawals will remain in effect until replaced with an appropriate withdrawal for other, appropriate purposes (see Special Management Area section). Other withdrawals from mineral location will be pursued to provide protection to important resource values (see Table 3 and Table 4).

Surface disturbing activities on mining claims require a notice submitted to BLM for a cumulative surface disturbance of 5 acres or less and a plan of operations for disturbances of more than 5 acres. In ACECs, WSAs, potential additions to the Wild and Scenic River System, and areas closed to ORV use, a plan of operations will be required for any surface disturbing activities, regardless of acreage involved.

Geophysical Exploration

MANAGEMENT OBJECTIVE: **The objective for management of geophysical exploration activities is to provide opportunity for exploration of mineral resources and collection of geophysical data, while protecting other resource values.**

MANAGEMENT ACTIONS: **Most of the planning area is open to consideration of geophysical activities except where off-road vehicle use or explosive charges would cause unacceptable impacts.** Table 12 shows areas that are closed to the use of geophysical vehicles and explosive charges to protect sensitive resources.

Geophysical activities will generally be required to conform to the ORV designations and ORV management prescriptions for the planning area (see Off-Road Vehicle Management). However, geophysical exploration has been and will continue to be routinely granted site specific authorization for off-road vehicle use subject to appropriate limitations to protect various resources identified during analysis of proposed actions. Geophysical Notices of Intent will continue to be evaluated on a case-by-case basis, and all authorizations will be issued with appropriate analysis and mitigation requirements (see Appendix 5-1).

Geophysical activities will be restricted or prohibited within 1/4 mile or visual horizon of historic trails (whichever is closer) to protect trail integrity. Vehicles used for geophysical exploration or similar activities could be allowed to cross and drive down historic trails, provided a site specific analysis determines that no adverse effects would occur.

Generally, shotholes and vibroseis activity will be restricted or disallowed within 300 feet of historic and recreational trails; however, exceptions may be allowed if supported by a site specific analysis.

Geophysical travel through developed and semi-developed recreation sites is restricted to existing roads and trails.

Geophysical exploration on sections of the Sweetwater River, identified as having potential for wild classification under the Wild and Scenic Rivers Act requirements, is limited to foot access and placement of surface cables. No motorized vehicle use is allowed in these areas. Surface charges may be allowed if a site specific analysis determines no adverse impacts would occur to river values (see Wild and Scenic River section).

See other resource management prescriptions in this document for other prescriptions and guidance that may apply to minerals management activities.

OFF-ROAD VEHICLE MANAGEMENT

MANAGEMENT OBJECTIVE: **The objective for off-road vehicle (ORV) management is to provide opportunity for off-road vehicle use in conformance with other resource management objectives.**

MANAGEMENT ACTIONS: **Off-road vehicle use will be managed according to the ORV designations listed on Table 13 and shown on Map 20.**

Areas for ORV rallies, cross-country races, and outings may be provided on a permit basis.

Approximately 170,000 acres are closed to off-road vehicle use to protect naturalness and outstanding opportunities for solitude, or primitive and unconfined recreation.

In areas designated as either "limited" to designated roads and trails or "limited" to existing roads and trails for off-road vehicle use, motorized vehicles must stay on designated or existing roads and trails, unless allowed an exception by the authorized officer. This limitation applies to all activities involving motorized vehicles. Except for areas that are closed to off-road vehicle travel, some types of off-road motor vehicle use may be allowed by the authorized officer provided resource damage does not occur.

Vehicular travel in crucial and important wildlife habitats and during crucial and important periods will be restricted seasonally, as necessary (strutting grounds, spawning beds, big game ranges, calving/fawning periods, etc.) (Table 13).

Vehicular travel is restricted to designated roads in sensitive watersheds and in cultural site management areas.

Generally, over-the-snow vehicle use is subject to the prescriptions described in Table 13 unless a site specific analysis determines that exceptions can be allowed.

ORV implementation plans will be prepared, as necessary, and will reflect the ORV designations made in this RMP. ORV implementation planning will also be a part of comprehensive activity planning efforts.

See other resource management prescriptions in this document for other prescriptions and guidance that may apply to off-road vehicle management activities.

RECREATION RESOURCE MANAGEMENT

MANAGEMENT OBJECTIVES. **The objectives for recreation management are to: 1) ensure the continued availability of outdoor recreational opportunities sought by the public while protecting other resources; 2) meet legal requirements for the health and safety of visitors; and 3) mitigate conflicts between recreation and other types of resource uses.** Information provided by the Recreation Opportunity Spectrum will aid in identifying the types of recreation uses occurring on public lands.

MANAGEMENT ACTIONS. **Most public lands in the planning area are open to consideration of all individual, commercial, and competitive outdoor recreation uses.**

Developed recreation sites will be managed to assure public health and safety.

Undeveloped recreation sites and other recreation use areas will be managed with priority consideration for air quality, cultural resources, watershed protection, wildlife values, and public health and safety.

A 14-day camping limit is established on all BLM-administered public lands. Camping is limited to 14 days within a 28-day consecutive period. After the 14th day of occupation, campers must move outside a 5-mile radius of the previous location.

Dispersed camping is prohibited near water sources in designated areas where it is necessary to protect water quality and wildlife and livestock watering areas. Camping in other riparian areas is allowed within 200 feet of water. Areas will be closed to camping if resource damage occurs.

Special recreation permits will be considered on a case-by-case basis. Appropriate mitigation will be included in special recreation permits, commercial recreation uses, and major competitive recreation events to provide resource protection and public safety.

Suitable wild horse herd viewing area(s) may be developed to enhance public viewing of horses. Viewing areas plus a 1/2 mile distance surrounding them are closed to long-term or permanent intrusions and surface disturbing activities that could interfere with opportunities to view horses (e.g., structures, mineral activities, powerlines, roads, etc.). **Short-term intrusions within the 1/2 mile distance and actions that will blend with the landscape or will benefit the intent of the wild horse herd viewing areas will be considered on a case-by-case basis.**

The Oregon Buttes, Honeycomb Buttes, Steamboat Mountain, Leucite Hills, Red Creek, Pine Mountain, Little Mountain, and Cedar Canyon areas will be managed to assure their continuing value for recreational opportunities (Map 21). Recreation area management plans will be prepared for these areas if necessary.

The Continental Divide National Scenic Trail, Continental Divide Snowmobile Trail, the Green River, and the Wind River Front are designated special recreation management areas (SRMAs) to place management emphasis on enhancing recreation opportunities and to focus management on areas with high recreation values or areas where there are conflicts between recreation and other uses. The former SRMA designations (Killpecker Sand Dunes and Oregon and Mormon Pioneer National Historic Trails) are retained (Map 22). The management plan for the Oregon and Mormon Pioneer Trails will be implemented. Management plans for the Green River, Wind River Front, the Sand Dunes, and the Continental Divide National Scenic Trail and Snowmobile Trail will be developed.

The remainder of the planning area will be managed as an extensive recreation management area (ERMA).

Recreation project plans and an interpretive prospectus will be developed for the 14-Mile recreation site, Sweetwater Campgrounds, Boars Tusk, Leucite Hills, and the Continental Divide Snowmobile Trail.

The 14-Mile Recreation Area is closed to surface disturbing and development activities, except for those specifically associated with construction and development of recreation facilities for the site. The public water reserve and the recreational withdrawal which closes the area to mineral location and disposal will be retained (see Table 2 and Table 3).

The integrity of the Continental Divide Snowmobile Trail will be maintained to allow for continued snowmachine use. The trail system may be expanded by adding loop trails. Maintaining trail integrity will be accomplished by limiting surface disturbing activities, structures, or facilities that block or hinder trail use on or within 1/4 mile of the trail. The only exceptions will be facilities that support trail visitor use and experiences along the trail or to protect the health and safety of trail users.

Mountain bike trail opportunities will be explored. Specific areas include but are not limited to the Little Mountain-Firehole Canyon-Flaming Gorge area and the Wyoming Continental Divide Snowmobile Trail. Other mountain bike trails may be developed on a case-by-case basis. Partnerships with local citizens and Chambers of Commerce, Forest Service, and the State of Wyoming will be pursued. Trails will be signed, and brochures will be developed. Implementation plans will consider mountain bike and other mechanized vehicle needs.

The Green River, Sweetwater River, Big Sandy River, and the Bitter Creek segment between the towns of Rock Springs and Green River will be managed for recreation values. Recreation area management plans will be developed, where necessary.

The establishment of a "greenbelt" along the Green River from Fontenelle Dam to Flaming Gorge Reservoir will be supported.

Five backcountry byways are designated and will include consideration for mountain bike use. They are Tri-Territory Loop, the Lander Road, Red Desert, Fort LaClede Loop, and the Firehole-Little Mountain Loop. Brochures and interpretive signs will be prepared to inform users (see Map 21).

Additional travel routes that meet the criteria will be considered for designation as backcountry byways on a case-by-case basis.

Cutting of trees and firewood for camping purposes in developed recreation sites is limited to designated areas.

Recreation site development projects and access routes along intensively used streams and reservoirs will be managed to maintain or improve wetland habitat conditions.

Development of permanent recreation sites and facilities in undeveloped recreation use areas will be considered, provided proper mitigation and exceptions to Executive Order 11988 apply. The area within 500 feet of riparian areas and floodplains is an avoidance area for recreation site facilities. Exceptions may be considered following a site specific analysis. Adverse impacts to riparian areas and water quality is prohibited. Water sources at undeveloped recreation sites will be monitored. If the water is not potable, signs will be posted.

Vegetation buffer strips will be maintained between developed recreational facilities and surface water.

The natural values of Boars Tusk, Pilot Butte, and Emmons Cone will be protected. Surface occupancy and surface disturbing activities are prohibited in these areas, unless such activity would enhance management of these geologic features (Table 2 and Table 7). Interpretive facilities will be allowed.

Surface disturbing activities are prohibited within 1/4 mile of recreation sites unless such activities are determined to be compatible with or are done for meeting recreation objectives for the area. Generally, such activities (e.g., those associated with mineral development, roads, pipelines, powerlines, etc.) will be designed to avoid these areas. These areas would be open to development of recreation site facilities. An approved plan will be required prior to the site disturbance.

Posting information and directional signs will be necessary in some areas. This RMP establishes various types of resource designations, and sign posting will be provided to promote visitor use of the various areas consistent with management objectives.

See other resource management prescriptions in this document for other prescriptions and guidance that may apply to recreation resource management activities.

Wind River Front Special Recreation Management Area (261,140 acres of BLM-administered public lands)

MANAGEMENT OBJECTIVES. **The objectives for management of the Wind River Front Special Recreation Management Area (SRMA) are to: 1) provide protection and enhancement of the recreation opportunities, activities, and setting of the area; 2) maintain the high visual values of the area; 3) protect air quality in the adjacent Class I airshed; 4) maintain or enhance biological diversity; 5) prevent fragmentation of grasslands, shrublands, streams, wetlands, and forest habitats; and 6) maintain crucial big game habitats and migration corridors so that Wyoming Game and Fish Department population objectives can be met.**

MANAGEMENT ACTIONS. **The Wind River Front is Designated a Special Recreation Management Area (SRMA).**

The Wind River Front SRMA is all of the BLM-administered public lands that lie north of Township 27, east of Highway 191, northwest of Highway 28, and south of the Bridger-Teton and Shoshone National Forests.

To facilitate management, the area is divided into two units. The boundary between the two units is the Continental Divide, and the eastern unit includes the Prospect Mountains (see Map 22).

Eastern Unit (approximately 88,510 acres)

The management objective emphasis for this unit of the SRMA is for scenic, watershed, and wildlife values; recreation use; riparian and vegetation resources; and to provide protection to the Class I airshed in the Bridger Wilderness.

Major facilities (including linear facilities) are generally prohibited in this unit. Some facilities could be allowed if analysis indicates that the management objectives for the unit could be met. For example, small and short-distance feeder lines (e.g., power, telephone, water) may be considered.

This unit of the SRMA is closed to mineral leasing.

Surface disturbing activities must conform to unit management objectives.

The 500 acres associated with the *Arabis pusilla* portion of the Special Status Plants ACEC, is closed to ORV use. In the remainder of the unit, off-road vehicle (ORV) use is limited to designated roads and trails.

Seven BLM-administered public land parcels along the Sweetwater River (involving about 9.7 miles of the river) will be managed under the Wild and Scenic Rivers Act interim management guidelines. The purpose of this interim management is to maintain or enhance the outstandingly remarkable resource values on the public lands along the river and to maintain their suitability for consideration by Congress for inclusion into the National Wild and Scenic River Preservation System. The suitable public land parcels along the river are closed to mineral location and withdrawal from the public land laws, including the mining laws, will be pursued. More detailed information on the management of these public lands with the potential for Wild and Scenic River designation can be found in the Wild and Scenic River section.

The Sweetwater Bridge and Guard Station campgrounds are closed to mineral location and withdrawal from the public land laws, including the mining laws, will be pursued.

Additional withdrawals may be pursued in the unit to meet unit management objectives, if necessary.

The Sweetwater Bridge and Guard Station Campgrounds will be upgraded to better provide for public health and safety, reduce natural resource degradation, and to meet Bureau accessibility standards.

The integrity of the Continental Divide Snowmobile Trail, the Continental Divide National Scenic Trail, and the South Pass Cross Country Ski Trail will be maintained by limiting (and in some cases precluding) surface disturbing activities or facilities on or within 1/4 mile of the trails. The only exceptions will be the establishment of facilities to provide services to the users of the trails and to provide for public health and safety.

All activities in the unit will conform with the requirements of the Class II visual resource management classification and all management actions will be designed and located to blend into the natural landscape and to not be visually apparent to the casual viewer.

Location of long linear facilities will be avoided the unit. If avoidance is not possible, such facilities will be required to meet the Class II visual resource management classification standards. A transportation plan will be completed prior to allowing developments in the unit.

The public lands along about 1.5 miles of the Big Sandy River, adjacent to the Bridger-Teton Forest boundary, will be managed to retain their inherent pristine character. Actions that would alter these characteristics in this area are prohibited. Along this segment of the Big Sandy River, and within a 1/2 mile of either bank of the river, the public lands are closed to surface disturbing activities. A no surface occupancy requirement will be imposed on the area including the river and within 1/2 mile of either bank of the river (Table 2 and Table 7).

Western Unit (approximately 172,630 acres)

The management objective emphasis for this unit of the SRMA is for dispersed recreation uses such as camping, hunting, and fishing, with full consideration given to wildlife, cultural, vegetation, watershed values, and mineral development activity.

This unit of the SRMA is open to mineral leasing. Daily vehicle use and access may not be feasible for this entire area. Access, particularly proposed roads, may be limited and a road density analysis may be required. To prevent conflicts with recreation users, alternative access may be needed.

Surface disturbing activities in this unit will be limited through controlled surface use requirements or closing areas where maximum resource protection is necessary.

Facility placement will be designed for minimum surface disturbance, unless a site specific analysis determines that additional activity can occur and unit management objectives can be met. An exception may be granted if the operator/individual and surface management agency could arrive at an acceptable mitigation plan for anticipated impacts. Options in the mitigation plans may include consideration of development in one portion of the area coupled with no development in other areas. Other considerations may include placement of multiple facilities in a specific area (e.g., multiple wells and production facilities on one drill pad) and using remote control operations (e.g., remote well head and production facility control) to limit trips into locations or other areas.

All activities in the unit will conform with the requirements of Class III and Class IV visual resource management classifications and all management actions will be designed and located to remain subordinate to the characteristic landscape or to repeat the basic elements (form, line, color, and texture) inherent in the characteristic landscape. New roads will be designed so they conform with the landform and do not create the "tunnel effect."

Off-road vehicle use in the unit is limited to designated roads and trails.

Transportation planning will be completed prior to allowing development in the unit. Linear facilities will be required to conform with the transportation plan and follow existing routes and previously disturbed areas.

Surface disturbing activities are prohibited in the Dry Sandy Swales and the area within 1 mile of Dry Sandy Swales. A no surface occupancy requirement will be imposed in the area including the Dry Sandy Swales and within 1 mile of Dry Sandy Swales (Table 2 and Map 14).

See other resource management prescriptions in this document for other restrictions that may apply to recreation resource management activities.

SPECIAL STATUS SPECIES MANAGEMENT

Special Status species are those plant and animal species which are proposed for listing, officially listed (threatened and endangered), or candidates for listing as threatened or endangered by the Secretary of the Interior under the provisions of the Endangered Species Act, those listed or proposed for listing by a state in a category implying potential endangerment or extinction, and those designated by each BLM State Director as sensitive.

The management actions for special status species apply only to BLM-administered public lands. Emphasizing management of these species on public lands and preventing these species from being listed as threatened or endangered would benefit all parties within the Green River Resource Area. When species are listed as threatened and endangered, by law they become more universally protected on private, and state-owned lands, in addition to Federal lands.

MANAGEMENT OBJECTIVES: **The objectives for management of special status plant and animal species are to: 1) maintain or enhance essential and important habitat and prevent destruction or loss of the species' communities and important habitat; 2) provide opportunities for enhancing or expanding the habitat; and 3) prevent the need for listing these species as threatened or endangered** (Appendix 9-3, Appendix 10-1, and Appendix 10-2).

Only management of candidate, sensitive, and threatened and endangered plant species is addressed here. Management of candidate, sensitive, and threatened and endangered animal and fish species are addressed in the Wildlife Management and Special Management Area section. Should other species and their essential habitats be identified in the planning area in future, appropriate management decisions will be developed for such species and their essential habitats. If necessary, the RMP will be amended.

Candidate, Sensitive, and Threatened and Endangered Plant Species Management

MANAGEMENT ACTIONS: **Any management actions on potential habitat of special status plant species communities on federal land or on split estate lands (i.e., non-federal land surface ownership with BLM-administered federal minerals ownership) will require searches for the plant species prior to project or activity implementation to determine the locations of special status plant species and essential and/or important habitats. Special status plant populations are closed to activities that could adversely affect these species and their habitat.** Management requirements in habitat areas may include prohibiting or limiting motorized vehicle use, surface uses, and explosive charges or any other surface disturbing or disruptive activity that may cause adverse effects to the plants.

Known locations of special status plant species communities will be protected and closed to: 1) surface disturbing activities or any disruptive activity that could adversely affect the plants or their habitat; 2) the location of new mining claims (withdrawal from mineral location and entry under the land laws will be pursued); 3) mineral material sales; 4) all off-road vehicular use, including those vehicles used for geophysical exploration activities, surveying, etc.; and 5) the use of explosives and blasting. (See Map 23, Table 2, and Table 4, also see the discussion in Lands and Realty Management and Minerals Management.)

Locations of special status plant species are open to consideration for mineral leasing with a no surface occupancy requirement (see Table 7).

On essential and important special status plant species habitat, all fire suppression activities are limited to existing roads and trails. A site specific analysis will be prepared for all fire management activities (e.g., prescribed fires, fire suppression) around special status plant species sites to determine the appropriate fire management response.

Activities such as fencing, interpretive signs, or barriers to ensure protection to the special status plant species and their habitat will be considered on a case-by-case basis.

BLM will pursue acquisition of approximately 1,920 acres of additional Descurania torulosa habitat on Pine Butte (see Appendix 8-3).

Should new special status plant species be identified, they will be managed under the same prescriptions described above for the known species. This may result as new information about vegetation types and communities is acquired.

Management prescriptions for threatened and endangered species and proposed threatened and endangered species will be developed on a case-by-case basis in consultation with the U.S. Fish and Wildlife Service.

Known locations of special status species will be evaluated on a case-by-case basis to determine if they meet the relevance and importance criteria to be considered for ACEC designation. If appropriate, such locations will be proposed for ACEC designation and the Green River RMP will be amended, as necessary (see the section on Special Designation Management Areas).

See other resource management prescriptions in this document for other prescriptions and guidance that may apply to special status plant species management activities.

VEGETATION MANAGEMENT

MANAGEMENT OBJECTIVES: **The objectives for management of vegetation are to: 1) maintain or enhance vegetation community health, composition, and diversity in order to meet watershed, wild horse, wildlife, and**

livestock grazing resource management objectives; and 2) provide for plant diversity (desired plant communities) (Appendix 9-3).

MANAGEMENT ACTIONS. **Riparian habitat will be maintained, improved, or restored to provide wildlife and fish habitat, improve water quality, and enhance forage conditions. Where possible, acquisition of additional riparian area acreage will be pursued to enhance riparian area management** (see Appendix 8-3).

The minimum management goal for riparian areas is to achieve proper functioning condition. This is considered the first priority for vegetation management. Desired plant communities must meet the criteria for proper functioning condition. Guidelines to aid in achieving this goal are described in Appendix 9-2.

Desired plant community objectives for upland and riparian areas will be established for the planning area through individual site specific activity and implementation planning and as updated ecological site inventory data become available. All activity and implementation plans will incorporate desired plant community objectives. Native plant communities are the preferred species identified when establishing desired plant community objectives (EO 11998, BLM Manual 1745) (see Riparian Vegetation Guidelines for additional guidance).

Prescribed fire will generally be the preferred method of vegetation manipulation to convert stands of brush to grasslands and to promote regeneration of aspen stands and/or shrub species. Low intensity burns during periods of high soil moisture will be the preferred methods/times in mountain shrub communities (Appendix 9-2).

Prescribed burns may be conducted in crucial big game winter ranges if habitat values will be improved for these species. Prescribed fire is the preferred method of vegetation manipulation, and spring burns are preferred to regenerate shrubs. Chemical treatment will be used only where national guidelines can be exercised to prevent unwanted effects or harm to desirable fauna or flora and to prevent transportation of chemicals to other areas by water or air movement.

Approximately 26,700 acres of vegetative treatment will be designed to increase forage, while about 41,000 acres will primarily be designed to improve wildlife habitat. Treatment methods available include mechanical, biological, chemical, and prescribed fire (see Appendix 9-2).

Prescribed burns generally will be conducted in areas having greater than 35 percent sagebrush composition, 20 percent desirable grass composition, and greater than 10 inches of precipitation. Other vegetation manipulation methods will be considered on a case-by-case basis depending on objectives and cost benefits. All treated areas will be rested a minimum of 2 growing seasons from livestock grazing. Burn areas will be fenced from livestock and big game animals if necessary. Prescribed fire will be restricted in areas with surface coal or other fossil fuel outcrops.

Vegetation manipulation projects will be conducted to reach multiple use objectives and will involve site specific environmental analysis and coordination. Funds for vegetation manipulation in I category allotments will be provided by the BLM, other state or federal agencies, and private sources.

All vegetation manipulation projects will involve site specific environmental analysis, coordination with affected livestock operators and the WGFD, and will include multiple use objectives for resource uses including livestock grazing, wildlife, recreation, and watershed.

Vegetation treatments will be designed to be compatible with special status plant species. For example, spraying, burning, mechanical disturbances, etc. will not be allowed to adversely affect these plant species.

All vegetation treatments will be designed on a case-by-case basis and will be irregular in shape for edge effect, cover, and visual esthetics.

Vegetation treatment projects will be designed to protect water quality and dissipate erosion. This generally means accomplishing vegetation treatments in a mosaic pattern and leaving sufficient untreated vegetation to buffer riparian areas and intermittent and ephemeral drainages from erosion. Specific treatment designs for erosion control will be determined on a case-by-case basis.

See other resource management prescriptions in this document for other restrictions that may apply to vegetation management activities.

Riparian Vegetation Management Actions

Riparian habitat in proper functioning condition is the minimum acceptable status or level within the Green River Resource Area (see Glossary). **Under this RMP, 75 percent of the riparian areas should, within 10 years, have activity and implementation plans in various states of implementation that will allow riparian areas to achieve or maintain proper functioning condition.**

The Green River Resource Area uses BLM Technical Reports on Proper Functioning Condition (TR 1737-9 and TR 1737-11) to guide the effort in classifying or rating all lotic (moving water) and lentic (still water) riparian areas.

Site specific activity and implementation plans will be used to identify methods to achieve or maintain proper functioning condition in riparian areas.

Methods applied where grazing occurs include (but are not limited to) fencing, establishment of pastures and exclosures, off-site water development, off-site salt or mineral supplement placement, timing and seasons of use, establishment of allowable use levels for key riparian species, herding, grazing systems, etc. Appendix 9-2 contains examples of methods that would be considered. Methods applied where surface disturbing activities occur include (but are not limited to) distance restrictions, timing constraints, sediment containment and control design, and reclamation practices (Appendix 5-1 contains examples of methods that would be considered).

The next step beyond basic proper functioning condition of riparian areas is the achievement of desired plant communities. Desired plant community objectives will be developed on riparian areas based on any of several different methods, including Ecological Site Inventory, comparison areas (comparison areas would have similar soils, aspect, vegetation, and precipitation), and estimating the structural component that can be achieved in the short term. Desired plant community objectives can be short and long term. Desired plant community objectives take into consideration all uses of the riparian area which can include livestock grazing, wildlife, recreation, fisheries, flood control, etc.

While the desired plant community establishes objectives for the riparian area or upland plant community, the Desired Future Condition establishes goals for entire watersheds (or larger blocks of land) involving all activities and resources. Achieving proper functioning condition and a desired plant community are integral steps in the process of establishing and achieving the Desired Future Condition of an area.

See other resource management prescriptions in this document for other prescriptions and guidance that may apply to riparian management activities.

VISUAL RESOURCE MANAGEMENT

MANAGEMENT OBJECTIVES. **The objectives for management of visual resources are to: 1) maintain or improve scenic values and visual quality; and 2) establish priorities for managing the visual resources in conjunction with other resource values.**

MANAGEMENT ACTIONS. **Visual resource classes will be retained or modified to enhance other resource objectives such as those for cultural resource and recreation management, wild horse viewing, and special management areas.** The visual resource management classifications are shown on Table 14 and Map 24.

Projects and facilities will be designed to meet the objectives of the established visual classifications and appropriate mitigation will be included. Facilities (either in place or new), including linear rights-of-way, etc., must be screened, painted, or designed to blend with the surrounding landscape.

Management actions on public lands with a Class II visual resource management classification must be designed to blend into and retain the existing character of the natural landscape (Appendix 9-2).

Management actions on public lands with a Class III visual resource management classification must be designed to partially retain the existing character of the landscape.

Management actions on public lands with a Class IV visual resource management classification could result in major modification of the character of the landscape.

All surface disturbing actions, regardless of the visual resource management class, are required to be mitigated to reduce visual impacts. This will be achieved by designing and locating the disturbances in a manner that most closely meets the minimum degree of contrast acceptable for the visual resource management class.

Management actions in areas classified as rehabilitation areas will be designed to reclaim and improve visual resource values to achieve a higher classification (see Map 24 and Table 14).

The scenic values along Highway 28 within Fremont County will be protected. All proposed lands actions and other activities within view of the highway will be evaluated for impacts and will require mitigation to protect the scenic and historic values of this area. Class II visual resource management classifications on public lands will be retained.

The public lands along all other major highways in the planning area will be managed under their respective visual resource management classifications (Map 24, Table 13, and Table 14).

Suitable wild horse herd viewing area(s) may be developed to enhance public viewing of horses. Viewing areas plus a 1/2 mile distance surrounding them will be closed to long-term or permanent intrusions and surface disturbing activities that could interfere with opportunities to view horses (e.g., structures, mineral activities, powerlines, roads, etc.) (Table 7 and Table 2). **Short- term intrusions that will blend with the landscape or will benefit the intent of the wild horse herd viewing areas will be considered on a case-by-case basis.**

All activities that could be viewed from the Fontenelle Reservoir will be designed to be subordinate to the landscape.

See other resource management prescriptions in this document for other prescriptions and guidance that may apply to visual resource management activities.

WATERSHED/SOILS MANAGEMENT

MANAGEMENT OBJECTIVES. **The objectives for watershed/soils management are to: 1) stabilize and conserve soils; 2) increase vegetative production; 3) maintain or improve surface and groundwater quality; and 4) protect, maintain, or improve wetlands, floodplains, and riparian areas** (Appendix 9-3).

MANAGEMENT ACTIONS. **Land uses and surface disturbing activities will be designed to reduce erosion and to maintain or improve water quality. Management in damaged wetland and riparian areas will be directed toward restoration to pre-disturbance conditions.** Practices to carry out these actions may include ensuring that construction of stream crossings occurs during normal stream flows, not during high or peak flows when additional sediment from construction could be swept in the stream, and ensuring water discharges meet appropriate standards (Appendix 5-1). Streambank erosion and channel incision are of particular concern as either would result in unacceptable losses of riparian habitat. Accelerated surface erosion will impact riparian habitat adversely and reduce productivity in uplands (Map 25).

Management in the planning area will emphasize:

-reduction of sediment, phosphate, and salinity load in drainages where possible. Measures listed in Appendix 5-1 will be applied, as necessary. Guidelines described in the Wyoming Water Quality Rules and Regulations will also be applied, as necessary (Wyoming 1989);

-maintaining and improving drainage channel stability; and

-restoring damaged wetland areas. Exclosures will be designed to allow ample water for livestock and allow minimum impediments to big game migration.

Areas where the soils are highly erodible or difficult to reclaim will receive increased attention, and are avoidance areas for surface disturbing activities. Surface disturbing activities could be allowed in these areas if site specific analysis determines that soil degradation will not occur and that water quality will not be adversely affected. When applicable, an erosion control plan (such as an ERRP, Appendix 5-3) will be prepared as part of the site specific analysis process for activity and implementation planning. Rehabilitation plans will be developed and implemented for disturbed areas, as needed.

Activity and implementation plans will be designed with measures to reduce phosphate loading to Fontenelle and Flaming Gorge Reservoirs and the Green River.

BLM will participate with federal and local government agencies and the Colorado River Salinity Control Forum to develop and implement salinity control plans.

BLM will participate with federal and local government agencies to develop and implement phosphate reduction plans in tributaries to Fontenelle Reservoir and Flaming Gorge Reservoir.

Site specific activity and implementation plans (to reduce erosion and sediment yield, promote ground cover, enhance water quality) will be prepared for areas where needed. These areas include but are not limited to Cedar Mountain and Sage Creek/Currant Creek. The Red Creek watershed plan will continue to be implemented, as appropriate.

Activity and implementation plans for other land and resource uses and areas will include general watershed management directives and will incorporate sediment reduction and water quality improvement objectives. Priority areas (particularly for development of AMPs) include Upper Bitter Creek, Four J Basin, Vermillion Creek, and Upper Salt Wells watersheds.

Wetlands and floodplains within the planning area will be managed in accordance with Executive Orders 11988 and 11990.

The 100-year floodplains, wetlands, and riparian areas are closed to any new permanent facilities (e.g., storage tanks, structure pits, etc.). Proposals for linear crossings in these areas will be considered on a case-by-case basis (Table 7).

Surface disturbing and construction activities (e.g., mineral exploration and development activities, pipelines, powerlines, roads, recreation sites, fences, wells, etc.) that could adversely affect water quality, and wetland and riparian habitat, will avoid the area within 500 feet of or on 100-year floodplains, wetlands, or perennial streams and within 100 feet of the edge of the inner gorge of intermittent and large ephemeral drainages. Proposals for linear crossings in these areas will be considered on a case-by-case basis. Activities could be allowed if a site specific analysis determines that no adverse impacts will occur to floodplains, wetlands, perennial streams, or water quality, and a plan to mitigate impacts to water quality is approved (Map 25 and Table 7).

Practices, determined on a case-by-case basis, will be implemented as needed to protect groundwater and prevent soil contamination. Such practices could include lining of reserve, production, and other types of pits and will include alternate locations for plants, mill sites, ponds, and sewage lagoons where soils are highly permeable (Appendix 5-1).

Aquifer recharge areas will be managed to protect groundwater quality and to ensure continued ability for recharging aquifers. Protection will be provided by limiting road density and surface occupancy to maintain a healthy recharge area. Vegetative cover and geologic soil condition that are conducive to groundwater recharge will be maintained.

Activities within the water recharge area for the Town of Superior water supply will be designed to protect groundwater quality and will be allowed only if groundwater quality will be protected (Map 26).

BLM will cooperate with the State of Wyoming on the Wyoming State 208 water quality plan, and will coordinate the development of water quality plans consistent with BLM programs and RMP recommendations and decisions.

Water quality will be monitored as needed to determine pollution and land health conditions. An area-wide monitoring plan to determine sources of water pollution will continue.

Legal protection of those water uses, both consumptive and nonconsumptive (including instream uses), that are necessary for the accomplishment of BLM programs will be obtained, so that the beneficial uses may be continued or made possible in the future.

Areas may be considered for acquisition under a willing seller/willing buyer situation to enhance BLM management of watershed resources. BLM will not use powers of condemnation to acquire lands (Appendix 8-3).

See other resource management prescriptions in this document for other prescriptions and guidance that may apply to watershed or soils management activities.

WILD HORSE MANAGEMENT

MANAGEMENT OBJECTIVES: **The objectives for management of wild horses are to: 1) protect, maintain, and control viable, healthy herds of wild horses while retaining their free-roaming nature; 2) provide adequate habitat for free-roaming wild horses through management consistent with principles of multiple use and environmental protection; and 3) provide opportunity for the public to view wild horses.**

MANAGEMENT ACTIONS: **Wild horses will be managed within five Wild Horse Herd Management Areas** (Map 27).

An appropriate management level of 1,105 to 1,600 wild horses will be maintained among the five herd management areas (Table 15).

An appropriate management level (AML) of 69 to 100 horses in the Little Colorado Desert is established. The herd area, originally established in 1971, encompasses about 519,541 acres of BLM- administered public lands. The specific boundary and specific management prescriptions for this area will be identified in an activity plan (see Table 15).

The site specific activity plans for the five wild horse herd management areas in the planning area will be maintained to conform with RMP objectives for vegetation management and implemented. A monitoring program will be developed to provide information to support wild horse management decisions.

Specific habitat objectives for herd management areas will be developed. Consideration will be given to desired plant communities, wildlife, watershed, livestock grazing, and other resource needs.

Water developments will be provided if necessary, to improve herd distribution and manage forage utilization. The feasibility of water development on the checkerboard land portion of the herd areas, to better distribute wild horses will be determined. Any water developments proposed in the Rock Springs Allotment would primarily enhance management of wild horses (Appendix 9-4 of the Draft EIS).

Water developments on crucial winter ranges could be allowed if they conform with wildlife objectives and do not result in adverse impacts to the crucial winter range.

Wild horse herd management will be directed to ensure that adequate forage (about 17,400 AUMs) will be available to support appropriate management levels in the herd units and that herds maintain appropriate age, sex, and color ratios.

Selective gathering programs will be implemented in each of the wild horse herd management areas. Gathering plans will be prepared for removal of excess horses from inside and outside the wild horse herd management areas. Gathering cycles will vary by plan objectives, resource conditions, and needs. Fertility control will be initiated only if necessary. These actions will aid in stabilizing populations, managing for conditions and special characteristics, and supply an adoptable population (young horses).

Fencing in wild horse herd management areas will be restricted to those situations where multiple-use values will be enhanced. All fences will be constructed to minimize restriction of wild horse movement.

Opportunity for public education and enjoyment of wild horse herds will be provided by placing interpretive signs, providing interpretive sites, and providing access to the herd areas. Signs providing information on wild horses will be placed in strategic locations such as the rest area east of Rock Springs along Interstate 80, on the Bar X Road at the junction with I-80, and at the entrance to the Oregon Buttes and Continental Peak areas on Highway 28. See the Recreation and Visual Resource Management sections for direction on wild horse herd viewing areas.

Other resource uses will be maintained and protected consistent with those resource management objectives while maintaining viable, healthy wild horse herds and appropriate herd management levels. Wild horse herd management areas will be managed in a natural, healthy state and for an ecological balance among wild horses and land and resource uses.

See other resource management prescriptions in this document for other prescriptions and guidance that may apply to wild horse management activities.

WILDERNESS RESOURCE MANAGEMENT

MANAGEMENT OBJECTIVE: **The objective for management of the wilderness resource is to retain the wilderness quality and manage the Wilderness Study Areas in the RMP planning area in accordance with the "Interim Management Policy and Guidelines for Lands Under Wilderness Review," until Congress acts on designation** (see Map 28).

MANAGEMENT ACTIONS: Wilderness management plans will be prepared for those WSAs designated by Congress as wilderness.

Discretionary uses within or adjacent to WSAs will be reviewed to ensure they do not create conflicts with management and preservation of wilderness values.

Should Congress designate the WSAs in the planning area (partially or wholly) as wilderness, the management of the designated areas will be for wilderness values, either as described in the appropriate wilderness EIS or as directed by Congress.

Should Congress not designate areas (partially or wholly) as wilderness, the management of the nondesignated areas will be in accordance with the approved Green River RMP or as otherwise directed by Congress. The undesignated areas will lose their identity as WSAs and will be managed consistent with the adjoining areas as prescribed in the Green River RMP or as otherwise directed by Congress.

If necessary, in the course of incorporating the wilderness decisions into the RMP, the RMP will be amended.

WILDLIFE MANAGEMENT

MANAGEMENT OBJECTIVES **The objectives for management of wildlife and fish habitat are to: 1) maintain, improve, or enhance the biological diversity of plant and wildlife species while ensuring healthy ecosystems; and 2) restore disturbed or altered habitat with the objective to attain desired native plant communities, while providing for wildlife needs and soil stability.**

The objectives for management of wetlands/riparian areas are to: 1) achieve a healthy and productive condition for long-term benefits and values in concert with range, watershed, and wildlife needs; and 2) enhance or maintain riparian habitats by managing for deep-rooted native herbaceous or woody vegetation.

The objective for management of threatened, endangered, special status, and sensitive plant and animal species is to provide, maintain, or improve habitat through vegetative manipulation, mitigation measures, or other management actions including habitat acquisition and easements (see Special Status Species Management, Appendix 10-1, and Appendix 10-2).

MANAGEMENT ACTIONS **To the extent possible, suitable wildlife habitat and forage will be provided to support the Wyoming Game and Fish Department 1989 Strategic Plan objectives. Changes within Wyoming Game and Fish Department planning objective levels will be considered based on habitat capability and availability and site specific analysis.**

BLM will cooperate with the Wyoming Game and Fish Department (WGFD) in preparation of studies for the introduction and re-introduction of native and non-native wildlife and fish species.

High value wildlife habitats will be maintained or improved by reducing habitat loss or alteration and by applying appropriate distance and seasonal restrictions and rehabilitation standards to all appropriate activities. These habitats include crucial winter habitat, parturition areas, sensitive fisheries habitat, etc.

Big game crucial winter ranges and parturition areas will be protected to ensure continued useability by limiting activities during critical seasons of use and by limiting the amount of habitat disturbed. (See Glossary for surface disturbance factor for wildlife and surface disturbance activity.)

Grouse breeding and nesting areas will be protected.

Aboveground facilities (power lines, storage tanks fences, etc.) are prohibited on or within 1/4 mile of grouse breeding grounds (leks). Placement of facilities, "on" (very low profile) or below ground, and temporary disruptive activities, such as occur with pipeline construction, seismic activity, etc., could be granted exceptions within 1/4 mile of leks, in certain circumstances.

To protect breeding grouse, disruptive activities will **avoid occupied grouse leks from 6:00 p.m. to 9:00 a.m. daily. The actual area to be avoided and appropriate time frame (usually from March 1 through June 15) will be determined on a case-by-case basis** (Table 2). The avoidance area size (usually within 1/4 to 1/2 mile of the lek) may vary depending on natural topographic barriers, terrain, line of sight distance, etc. (Appendix 7).

To protect grouse nesting habitat, seasonal restrictions will apply within appropriate distances from the grouse lek. Appropriate distances (up to two miles) and time frames (usually from March 1 through June 30) will be determined on a case-by-case basis (Table 8). Exceptions to seasonal restrictions may be granted, provided the criteria in Appendix 7 can be met.

Active and historic raptor nesting sites will be protected and managed for continued nesting activities. An active raptor nest is one that has been occupied within the past 3 years; an historic nesting site is an area of high topographic relief, particularly cliff areas, known to have supported concentrations of nesting raptors, such as Cedar Canyon, Four-J Basin, Kinney Rim, etc. The appropriate level of protection will be determined on a case-by-case basis depending upon the species involved, natural topographic barriers, and line-of-sight distances, etc. Different species of raptors may require different types of protective measures (Table 7).

Project components, such as permanent and high profile structures, i.e., buildings, storage tanks, powerlines, roads, well pads, etc. are prohibited within an appropriate distance of active raptor nests. The appropriate distance (usually less than 1/2 mile) will be determined on a case-by-case basis and may vary depending upon the species involved, natural topographic barriers, and line-of-sight distances, etc. Placement of facilities, "on" (very low profile) or below ground, and temporary disruptive activities, such as occur with pipeline construction, seismic activity, etc., could be granted exceptions within 1/2 mile of active raptor nests, in certain circumstances (Appendix 7).

Nesting raptors will be protected by restricting disruptive activities seasonally within 1/2 to 1 mile radius of occupied raptor nesting sites (Table 8 and Appendix 7).

Raptor nest surveys will be conducted within a 1-mile radius, or linear distance of proposed surface uses or activities, if such activities are proposed to be conducted during raptor nesting seasons, usually between February 1 and July 31.

Fences on public lands will be removed, modified, or reconstructed if documented wildlife or wild horse conflicts occur. Introduction of herder control will be encouraged as an alternative to fencing. All constructed fences will follow construction standards and design (BLM Manual 1740) and will be located and designed to not impede wildlife and wild horse movement.

Livestock and wild horse water developments in crucial habitat could be allowed if they conform with wildlife objectives and do not result in adverse impacts to the crucial habitat.

The cooperative management agreement with the WGFD for annual monitoring, maintenance, and the development of additional waters will continue as needed. Livestock water developments will be modified or protected where possible to enhance wildlife habitat and to maintain or enhance water quality.

Needed special management and riparian management exclosures will be developed and/or maintained, and exclosure plans will be implemented for enhancement of wildlife habitat. Exclosures are closed to livestock grazing use and no AUMs in these areas will be available for livestock use.

Aquatic, wetland, and riparian habitat are not suitable for disposal unless opportunities exist for land exchange for lands of equal or better value. BLM will consider acquiring additional lands along perennial waters and wetlands (Appendix 8-3). Water rights for BLM water developments will be pursued as appropriate.

Management toward proper functioning condition or desired future condition of riparian areas will be implemented (see discussions in Livestock Grazing Management, in Vegetation Management, and Appendix 9-3). Executive Order 11990 for the protection of wetlands will apply.

Seasonal restrictions for surface disturbing activities to protect game fish and special status fish populations during spawning will be applied as necessary.

The BLM will continue to coordinate and to annually review with APHIS - Wildlife Services (WS), their annual wildlife damage management plan for animal damage control activities on public lands. Areas where proposed animal damage control activities (all or specific methods) are not compatible with BLM planning and management prescriptions or objectives for other resource activities and users, will be identified on a case-by-case basis, and APHIS-WS will be requested to amend or adjust proposed animal damage control activities accordingly.

Habitat management plans will be developed, where needed, particularly for highly developed and disturbed areas to mitigate wildlife habitat losses. Plans could include habitat expansion efforts, T&E species reintroduction, and population goals and objectives. Such actions as preparing transportation plans and reclaiming roads, seeding, and vegetation enhancement (vegetation treatments, fencing), water developments, and reclamation actions to reduce the amount of disturbance, will be considered. Areas identified for consideration of such plans include but are not limited to the Little Colorado Desert (including the Fontenelle II and Blue Forest units), Nitchie Gulch, Wamsutter Arch, Patrick Draw, and Cedar Canyon areas.

See other resource management prescriptions in this document for other prescriptions and guidance that may apply to wildlife management activities.

SPECIAL DESIGNATION MANAGEMENT AREAS

Introduction

The relevance and importance criteria applied to the areas considered for ACEC designation are summarized in Appendix 1. The management objectives and management actions identified here apply only to BLM-administered public lands and federal minerals. Private and state lands and minerals, and other federal lands administered by other federal agencies are not covered by these actions. Actions on lands not administered by BLM are determined by the owners or administrators of those lands. Access to private and state lands, where surrounded by BLM-administered lands, will be provided following appropriate analysis. For additional information, refer to Map A.

Any ACEC designations apply only to BLM-administered public land surface.

Cedar Canyon ACEC (2,550 acres of BLM-administered public lands)

The ACEC designation for the BLM-administered public lands in the area is retained.

MANAGEMENT OBJECTIVE: **The management objective for the BLM-administered public lands in the Cedar Canyon ACEC is to provide protection and enhancement of relevant and important cultural values, scenic values, and wildlife habitat in the area.**

MANAGEMENT ACTIONS: **The BLM-administered public lands in the ACEC are open to consideration for mineral leasing with restrictions to protect cultural and wildlife values, particularly raptors and raptor habitat, big game winter range, and watershed values (Table 2, Table 7, and Table 8).**

Vegetation will be managed to provide habitat for wildlife.

Habitat for raptors will be maintained or enhanced. Cliffs, tree hollows, and pinnacles will be managed to provide nesting habitat.

The ACEC is closed to wood cutting and the removal of other vegetative product materials.

Site specific analyses will be conducted to provide direction to alleviate conflicts between wildlife use, livestock grazing, and development activities.

Livestock grazing objectives and management practices will be evaluated and, as needed, modified to be consistent with the watershed, water quality, recreation, and riparian management objectives. Grazing systems will be designed to achieve desired plant communities and proper functioning condition of watersheds (upland and riparian) (Appendix 9-3).

Highly erodible soils throughout the ACEC will be managed to maintain or reduce erosion levels and to improve vegetative ground cover. Guidelines necessary to protect these areas will be developed. Surface disturbing activities may require approval of engineering design plans. Where necessary, identified roads will be upgraded, maintained, and properly surfaced in accordance with BLM standards.

Opportunities will be made available for the various dispersed recreational activities (e.g., camping, picnicking) that occur in the area. This may include maintaining, preserving, or enhancing existing opportunities and developing new opportunities to provide for optimum visitor experience. Facilities and projects will be signed to interpret and provide information about sites in the area and directions for travel through the ACEC.

Motorized vehicle travel in the ACEC (including over-the-snow vehicles) is limited to designated roads and trails. All off-road vehicle travel in the area is restricted during the winter and spring to protect wildlife during high stress periods of severely cold temperatures, heavy snow cover, and short food supply.

BLM will attempt to acquire needed access to this ACEC. Signing and closing of all nonessential roads and trails will be accomplished along with providing legal and physical access.

The ACEC will be managed consistent with the Class II, Class III, and Class IV visual resource management classifications to protect, maintain, and enhance the visual resource values. All future facilities will be designed to blend with the landscape, including painting where necessary, and disturbed areas will be revegetated to keep visual resource impacts to a minimum.

A reclamation plan for disturbed areas will be prepared to restore lost habitat. Reclamation of some areas may be required prior to disturbing additional areas.

Wildlife waters will be developed and maintained as necessary.

The ACEC is open to consideration of coal leasing by subsurface mining methods only. Surface coal mining methods in the area are prohibited.

Any activities or ancillary facilities related to either surface or subsurface mining are prohibited on or within a 1/2 mile radius of rock art site(s). In areas that are more than 1/2 mile from rock art site(s), seasonal uses and types of placement of surface facilities, activities, etc., related to subsurface mining, will be allowed on a very limited basis.

Proposed surface disturbing activities on BLM-administered public lands, within 1/2 mile from the Cedar Canyon Petroglyph rock art site (about 360 acres), will be analyzed for the visual effects to the actual area that can be seen from the rock art site within the 1/2 mile area surrounding the site (vista area). Most surface disturbing activities visible within this vista are prohibited. Some disturbance activities, such as interpretive facilities, within the vista area will be allowed, if they do not affect the integrity of the rock art site. Other kinds of activities, such as audible disturbances, may not be allowed if they would adversely affect the sacred Native American values (Table 4).

The vista area is also closed to: 1) the location of mining claims and entry under the land laws (withdrawal from land entry and mineral location will be pursued); 2) mineral material sales; 3) the use of explosives and blasting, and vibroseis operations; and 4) the use of fire retardant chemicals containing dyes.

The vista area will be managed consistent with a Class II visual resource management classification.

About 2,190 acres that are more than 1/2 mile from the rock art site (i.e., outside of the 360-acre vista area), are open to: 1) the location of mining claims; 2) mineral material sales; and 3) seismograph activity, including the use of explosives and blasting, provided the wildlife, cultural, and scenic values are protected. This area is also an avoidance area for surface disturbing activities. Constraints will be applied as appropriate to protect the wildlife, cultural, and scenic resource values. Within this 2,190 acres, disturbed areas must be reclaimed to blend with the landscape. New rights-of-way will be required to follow existing roads and rights-of-way wherever feasible (Table 2). Limited surface facilities for other surface disturbing activities could be considered if they meet the management objectives for the ACEC.

Greater Red Creek ACEC (131,890 acres of BLM-administered public lands)

The 131,890 acres of BLM-administered public lands in the Greater Red Creek area are designated the Greater Red Creek ACEC.

The Greater Red Creek area includes the BLM-administered public lands in the Currant Creek and Sage Creek watersheds (including their tributaries), and the original Red Creek ACEC.

MANAGEMENT OBJECTIVE: **The management objectives for the area are to: 1) improve watershed condition and enhance watershed values, including, but not limited to, improving channel stability, vegetation diversity and abundance, and water quality; 2) improve riparian areas that are at less than proper functioning condition to proper functioning condition as a minimum; 3) repair, improve, or maintain Colorado River cutthroat trout habitat in Red, Currant, Trout, and Sage Creeks and their tributaries; 4) provide opportunities for dispersed recreation uses in the area that are consistent with the primary watershed, riparian, and fisheries management objec-**

tives; 5) allow the recreation user the opportunity to have a high degree of interaction with the natural environment, to have moderate challenge, and to use outdoor skills; 6) maintain important wildlife habitat; 7) preserve scenic resources; and 8) reduce the amount of sediment being delivered to the Green River through Red Creek by reducing accelerated sheet, rill, gully, and channel erosion.

Actions that Apply to the Entire ACEC

MANAGEMENT ACTIONS. **All resource and land uses in the area will be managed in support of watershed stability and Colorado River cutthroat trout habitat management objectives.**

Various dispersed recreation uses will be allowed.

Management will include emphasis on maintaining or improving important wildlife habitat.

The Greater Red Creek ACEC will, in general, be managed as an avoidance area for rights-of- way and surface disturbing activities (Table 2 and Table 7). Exceptions (in some specific areas) are described in the individual watershed sections.

Any actions to be conducted in the area will be considered and analyzed on a case-by-case basis. Controls may be placed on the amount, sequence, timing, or level of activity or development that may occur to assure that the actions will be consistent with or help to meet the management objectives for the area. This may result in limiting the number of roads and other construction, other surface disturbing activities, or development in some areas until other areas have been satisfactorily reclaimed and restored (Appendix 5-2).

Most of the area is open to mineral leasing and related exploration and development activities with appropriate mitigation requirements applied to protect the other important resource values.

The area will be open to consideration for such activities as fencing, interpretive signs, construction and placement of transportation barriers, sediment or erosion control, and fish habitat structures to meet resource management objectives.

Livestock grazing objectives and management practices will be evaluated and, as needed, modified to be consistent with the watershed, water quality, fisheries, recreation, and riparian management objectives. Grazing systems will be designed to achieve desired plant communities and proper functioning condition of watersheds (upland and riparian) (Appendix 9-3).

Any activity that could preclude the achievement of proper functioning condition of uplands and riparian areas and achievement of other management objectives is prohibited.

Forested areas will be managed primarily toward meeting the watershed, riparian, fisheries, and recreation objectives for the ACEC. Timber harvest levels and logging practices will be designed to help meet those objectives.

Any increase in vegetative production will be reserved for watershed stabilization and improvement purposes.

Re-introduction of Colorado River cutthroat trout and other native species will be considered if consistent with watershed and riparian objectives. This will be done in cooperation with the Wyoming Game and Fish Department. Habitat for special status plant and animal species will be monitored and site specific activity plans will be developed to address habitat repair, maintenance, and enhancement needs.

Travel and transportation of firefighting equipment is limited to designated roads and trails. Use of heavy firefighting equipment is prohibited in areas closed to surface disturbing activities.

Fire management, suppression needs, and prescribed burning in timber stands will be evaluated on a case-by-case basis to ensure timber stands are maintained in healthy condition and the "snowfence effect" is preserved. Fire management in other areas will be evaluated on a case-by-case basis to ensure that area objectives are met.

Aquifer recharge zones in the area will be managed to protect groundwater quality. Protection includes limiting road density, surface disturbing activities, and surface occupancy in identified recharge zones, in order to maintain them in a healthy and functioning condition (Map 26).

Vegetation treatments will be designed to help meet and be consistent with all management objectives for the area. Treatments in the inner gorge of intermittent and ephemeral drainages will be designed to leave mosaic patterns of treated and untreated areas of vegetation.

Herbicide loading sites must be located at least 500 feet from surface water or at least 500 feet from riparian areas (whichever is greater). Herbicide treatment of noxious weeds on BLM- administered public lands requires a site specific analysis to help determine whether or not such action will be authorized.

Recreation development will be kept to a minimum. On-site controls and facilities will be provided for the protection of resource values and the safety of the users only.

Camping is allowed within 200 feet of surface water if damage to watershed, water quality, and wildlife values can be avoided. Areas will be closed to camping if resource damage occurs.

Off-road vehicle travel on BLM-administered public lands within the area is limited to designated roads and trails. A transportation plan will be developed for the area. Some existing roads and trails in the area may be closed and reclaimed as a result of transportation planning. Transportation planning will include consideration of proper road location, construction, reconstruction, design, and reclamation. New road construction will be reviewed on a case-by-case basis for conformance with area and transportation plan objectives. In some cases, consideration of a "no net gain in roads" factor may be an effective way to help meet objectives in the area.

Actions Unique to the Sage Creek Watershed

MANAGEMENT ACTIONS **About 9,600 acres of federal coal in the Sage Creek watershed are acceptable for further consideration for development by surface and subsurface coal mining methods, with certain stipulations.** Coal leases and development in the area will include a requirement for plans of development, mining plans, etc., to include adequate mitigation measures to assure protection of the fisheries and watershed values, prior to allowing any mining activity.

The watershed (about 52,270 acres) will be managed consistent with the Class III visual resource management classification.

Actions Unique to the Currant Creek Watershed

MANAGEMENT ACTIONS **All BLM-administered public lands within this watershed (about 23,740 acres) are closed to: 1) surface disturbing activities ; 2) mineral material sales; and 3) mineral location. A withdrawal from entry under land laws and mineral location will be pursued. This area is also an exclusion area for rights-of-way** (see Table 2, Table 4, and Table 7).

Exceptions to these requirements are:

> **A north-south right-of-way window, parallel to the east side of the Flaming Gorge National Recreation Area will be established at County Road 4-33 or to the west of this road.**
>
> **Aboveground power lines that span the drainage (from rim to rim) could be considered east of County Road 4-33 in the northern portion of the Currant Creek watershed, if environmental analysis demonstrates that scenic, watershed, and fisheries objectives could be met.**
>
> **The rim areas within the Currant Creek watershed (tops of the watershed ridges) with slopes of less than 25 percent could be considered for surface disturbing activities if environmental analysis demonstrates that watershed, fisheries, wildlife, and scenic objectives could be met. Within the Currant Creek watershed, slopes greater than 25 percent and areas in or within 500 feet of riparian areas and floodplains are closed to surface disturbance unless the action is designed specifically for the enhancement of watershed values and Colorado River cutthroat trout habitat.**

The BLM-administered public lands in the watershed are closed to coal and sodium exploration, prospecting, leasing, and development activities (Table 9).

BLM will pursue possibilities of land exchanges to acquire lands along Currant Creek and Trout Creek to improve management opportunities for Colorado River cutthroat trout and its habitat (Appendix 8-3).

The area will be managed consistent with the Class II visual resource management classification. Management actions on the BLM-administered public lands classified as Class II visual resource management lands will be designed to retain the existing character of the landscape.

Fire suppression activities in this watershed will be limited to containment at ridgetops.

Actions Unique to the Red Creek Watershed

MANAGEMENT ACTIONS **The BLM-administered public lands within this watershed (about 55,880 acres) are closed to: 1) surface disturbing activities; 2) mineral leasing; 3) mineral material sales; and 4) mineral location. A withdrawal from entry under the land laws and mineral location will be pursued for the area** (Table 4 and Table 7).

The one pipeline right-of-way concentration area in the watershed is an avoidance area for any additional rights-of-way. However, that part of the right-of-way concentration area, from the Red Creek escarpment south to Richards Gap, is closed to any new rights-of-way development for at least 10 years to allow soils to stabilize from previous disturbance. At the end of the 10-year period, new rights-of-way in the area could be reconsidered if satisfactory stabilization has occurred. The remainder of the BLM-administered public lands that lie east of the right-of-way concentration area will also be managed as an exclusion area for rights-of-way (see Table 2, Map 7, and Map 8).

A right-of-way grant has been issued to Questar Pipeline Company to build the Mainline 101 Pipeline (formerly known as Mainline 58 Loop) across public lands through the Red Creek escarpment. Construction of this line will be complete by the end of 1997. Future rights-of-way across public lands through this area (for linear utilities, transmission lines, communication sites, roads and highways, etc.), that would adversely affect the stabilization of the watershed will be prohibited for at least 10 years.

The area will be managed consistent with the Class II visual resource management classification. Management actions on the BLM-administered public lands classified as Class II visual resource management lands will be designed to retain the existing character of the landscape.

The Red Creek watershed will be managed to minimize accelerated erosion and increased sedi mentation into the Green River/Colorado River system.

Extraction of mineral materials for large projects or commercial purposes is prohibited in the area. Activities such as road maintenance could be accomplished to meet area objectives and provide needed or improved access. Borrow material for this purpose could be obtained provided no access will be built to obtain the material and provided disturbance does not cause additional erosion or watershed degradation. The borrow area will also be satisfactorily reclaimed.

A portion of the Red Creek ACEC overlaps the Red Creek Wilderness Study Area (about 8,020 acres). Wilderness management recommendations and alternatives for this area are addressed in the *Rock Springs District Final Wilderness EIS*. The prescribed management in this overlap area is more stringent than either the interim wilderness management policy or management for designated wilderness areas; therefore, it is addressed here.

The 8,020 acres of the area that overlap the Red Creek WSA are closed to off-road vehicle travel, including over-the-snow vehicles, to maintain natural conditions, outstanding opportunity for solitude, or a primitive or unconfined type of recreation in the area. Mechanized vehicle use will be determined on a case-by-case basis.

This 8,020-acre portion is also closed to mineral location (withdrawal will be pursued) and to geophysical activities (Table 4, Table 12, and Table 13).

Greater Sand Dunes ACEC (38,650 acres of BLM-administered public lands)

The ACEC designation for the BLM-administered public lands in the Greater Sand Dunes ACEC area is retained.

MANAGEMENT OBJECTIVE. **The management objective for the BLM-administered public lands in the Greater Sand Dunes ACEC is to preserve and protect the integrity of the unique values in the area for future public use and enjoyment. These values include the unusual geological features associated with the sand dunes and the Boars Tusk; the biological interrelationships supported by the dunes, especially the Steamboat desert elk herd, mule deer herd, and other dependent plants and animals; and a variety of recreation uses.**

General Area

MANAGEMENT ACTIONS. **The BLM-administered public lands in the ACEC will be managed consistent with the Class II visual resource management classification.** Management actions on the BLM-administered public lands classified as Class II visual resource management lands will be designed to retain the existing character of the landscape.

The visual impacts of facilities (e.g., producing wells) or other visual intrusions in the area will be evaluated and mitigated to the extent reasonable.

The BLM-administered public lands in the Greater Sand Dunes area and those within 1 mile or the visual horizon (whichever is closer) of the area are avoidance areas for new rights-of-way (approximately 70,850 acres) (Table 2).

Any surface disturbing activities within the Wasatch and Green River Formations require paleontological clearance.

The BLM-administered public lands in the area are closed to mineral material sales.

Livestock grazing objectives would be evaluated, and as needed, modified to be consistent with the management objectives for the area.

Grazing systems will be designed to achieve desired plant communities and proper functioning condition of watersheds (upland and riparian) (Appendix 9-3). Maintenance and use of existing rangeland improvements on the BLM-administered public lands is allowed. Proposed rangeland improvements must be part of an allotment management plan, and be consistent with the management objectives for the area. Environmental analyses of such improvements will be conducted to consider the effects on resource values from rangeland improvement construction and maintenance activities and equipment used for these activities.

Materials used for improvements must be compatible with the natural character of the area to reduce intrusive visual effects on the natural environment.

Wild horse use in the area will be consistent with the Great Divide Basin Wild Horse Herd Management Plan and the management objectives for the area. No wild horse traps will be constructed within the area.

To support and improve the diversity of wildlife species within the area, wildlife habitat on the BLM-administered public lands will be protected, maintained, or enhanced. Crucial elk winter range in the area will be maintained as an essential component of the Steamboat Mountain-Sands elk habitat.

Projects to improve the interdunal ponds for bird, amphibian, and mammal habitat will be considered and evaluated for development on the BLM-administered public lands.

Interpretive materials and educational programs may be developed to describe wildlife, cultural, and other values in the area.

Native vegetation will be maintained and protected on the BLM-administered public lands to allow natural plant succession to continue. Revegetation of disturbed areas with big sagebrush and other adaptable shrubs will be required to maintain and/or improve big game habitat.

A diversity of non-motorized recreation uses, including hiking, bird-watching, photography, sightseeing, and hunting, will be encouraged. Appropriate recreation facilities will be developed and maintained on BLM-administered public lands to provide for a diversity of motorized and non-motorized recreation uses.

Two roads that pass through or adjacent to the area will be designated as part of the Tri- Territory backcountry byway (see Map 21).

Camping is restricted to the BLM 14-day limit, and subject to "Pack In-Pack Out" requirements for trash, etc. (see Recreation Resource Management).

Additional or Different Items Specific to the Western Portion of the Greater Sand Dunes Area

The western portion of the Greater Sand Dunes area is bounded on the east by the Sand Dunes WSA boundary and on the west by the Greater Sand Dunes ACEC boundary.

Management of the portion of the Greater Sand Dunes area that overlaps the Buffalo Hump and Sand Dunes WSAs (25,250 acres in the western portion of the Sand Dunes area) is directed by the "Interim Management Guidelines for Lands Under Wilderness Review." The prescribed management in this overlap area is more stringent than either the interim management policy or wilderness policy for designated wilderness areas, therefore, it is addressed here. Wilderness management recommendations and alternatives for this area are addressed in the *Rock Springs District Final Wilderness EIS*.

The portion of the area that overlaps the WSAs is closed to off-road vehicles, including over-the- snow vehicles, and some mechanized vehicles to maintain the unique naturalness, solitude, and primitive and unconfined recreational opportunities.

This overlap portion will also be closed to mineral location, entry under the land laws, and geophysical activities. The oil shale withdrawal will remain in effect until a comprehensive study is completed for the area and, if necessary, lands could be identified to be withdrawn for protection of their resource values (Table 4).

The approximate 4,360 acres of Federal coal lands in the area are closed to further consideration for coal leasing and development.

Exchanges for acquisition will be pursued to enhance the management of resources in the area (1,920 acres).

Additional or Different Items Specific to the Eastern Portion of the Greater Sand Dunes Area

The eastern portion of the Greater Sand Dunes area is bounded on the west by the Sand Dunes WSA and on the east by the ACEC boundary.

Activities in the area will be required to conform with visual resource management classifications and prescriptions.

Geophysical activity, including off-road vehicle travel, is allowed, provided resource damage is minimized and the activities conform with ORV designations and transportation plans for the area.

The relatively pristine portion of the eastern area that has no developments (approximately 8,800 acres), including the base of Steamboat Rim, will be managed to protect big game habitat, vegetation communities, and visual and recreation resources.

Road construction and new access may not be feasible for much of the entire eastern portion. To prevent conflicts with big game, recreation users, and other resource and land use activities, alternative access methods may be needed (use of existing or designated roads or pads, seasonal travel requirements or restrictions, use of helicopters, etc.).

Activities will not be permitted to disrupt access to or use of developed and semi-developed recreation sites. Activities that are incompatible with recreation sites will be managed to avoid these sites.

Approximately 9,840 acres of Federal coal lands in the area are closed to coal leasing and development by surface mining methods and related surface facilities and activities. This area is open to consideration for coal leasing by subsurface mining methods with placement of surface facilities extremely limited.

Surface disturbing activities, geophysical activities, and oil and gas exploration and development activities are restricted seasonally on crucial big game winter ranges and big game birthing areas. Exceptions to this restriction may be approved for activities such as oil and gas development, rights-of-way, construction, and range improvement development, if conditions described in Appendix 7 apply. Once an operation starts (such as oil and gas drilling/completion), it would be allowed to be completed into or through the winter. Decision points for shutdown due to unacceptable winter conditions occur between exploration or development stages, such as pad construction and drilling startup, and between drilling/completion and production facility installation.

Surface water, soils, and shallow aquifers will be protected from contamination by practices such as closed drilling systems or installation of pit liners. Pit liners will be removed prior to reserve pit reclamation.

Dune ponds will not be used as water sources for development activities.

This portion of the ACEC is an avoidance area for rights-of-way. Some facilities could be allowed if analysis indicates that the management objectives for the area could be met. New linear facilities such as pipelines and powerlines in areas of ongoing development may be laid on the surface, or buried adjacent to access roads or within existing concentration areas containing such lines. Pipelines in the stabilized dune areas will be installed as surface lines to avoid unnecessary disturbance of vegetation. Surface gas pipelines will be monitored by the operators to identify potential hazards to ORV users. Identified hazards will be marked to improve visibility. A recreation user map will be developed in cooperation with oil and gas operators to show the location of aboveground facilities (e.g., pipelines, well production facilities, snow fences, etc.).

Any proposed activity or use that involves surface disturbance will require appropriate engineering design, geotechnical analysis, mitigation planning, etc.

Abandoned pipelines and other unnecessary facilities (e.g., snow fence) in unstabilized dune areas will be removed.

About 10,500 acres are designated open to off-road vehicle travel on the active sand dunes. Off- road vehicle travel on about 5,810 acres of stabilized dune areas is limited to existing roads and trails.

Crookston Ranch and Boars Tusk

The Crookston Ranch site will be managed to preserve its historic features and for the interpretation of ranching history in the area. About 500 acres of BLM-administered public lands surrounding the site (the area within a 1/2 mile radius) will be managed to preserve the setting of the historic ranch.

The Crookston Ranch and surrounding 500-acre area are closed to surface mining activities such as coal mining, and to the placement of related surface facilities.

The Crookston Ranch site (about 40 acres) is closed to: 1) surface disturbing activities; 2) mineral material sales; and 3) use of explosives and blasting (see Table 2 and Table 7).

The Crookston Ranch area is open to consideration of activities such as fencing, interpretive signs, or transportation barriers to ensure protection of the sites. Facilities are prohibited from being developed on site. Either a protective right-of-way or withdrawal for the Crookston Ranch will be pursued to accomplish this.

Fires in the Crookston Ranch area will be immediately suppressed if there is any potential of the structures being burned.

Off-road vehicle use is limited to designated roads and trails in this area.

The Boars Tusk will be managed to preserve its value as a geologic feature.

The Boars Tusk area (about 90 acres) is closed to: 1) surface disturbing activities; 2) mineral material sales; and 3) use of explosives and blasting.

The area within a 1/2 mile radius of Boars Tusk (including Boars Tusk) is closed to blasting and explosive charges (about 500 acres).

The Boars Tusk area is open to consideration of activities such as fencing, interpretive signs, or transportation barriers to ensure protection of the site. Facilities are prohibited from being developed on the actual geologic feature.

Off-road vehicle use is limited to designated roads and trails in this area. The road around the Boars Tusk is closed.

The Boars Tusk and about 1,400 acres of BLM-administered public lands in the surrounding area will be managed to retain natural and geologic values. The area is closed to any surface mining activity such as coal mining and any related surface facilities. The area is open to consideration of coal leasing by subsurface mining methods only. Any activities or ancillary facilities related to subsurface mining are prohibited.

Deferred Decisions in the Eastern Portion of the Greater Sand Dunes Area

The issuance of Federal minerals leases on BLM-administered public lands in the eastern portion of the Sand Dunes area (about 16,390 acres) is contingent upon completing a coordinated activity plan (CAP) encompassing the combined Steamboat Mountain and Greater Sand Dunes areas. This detailed implementation plan will identify areas of feasible access, allowable road densities, and amount and acceptable types of development in the area (e.g., field unitization may be a requirement for oil and gas development activities in the area). Drilling of additional oil and gas wells or production from temporarily shut-in wells could be allowed upon completion of the activity or implementation plan.

Deferred actions and mitigation requirements will apply to all surface disturbing activities, not just those related to oil and gas exploration and development. Surface disturbing and disruptive activities, such as road or utility development, construction, drilling, etc., will be deferred until the CAP is completed. The CAP will cover such things as transportation; drilling pad density, drilling, and operations after well completion; development and location of range improvements, recreational activities, etc.

Natural Corrals ACEC (1,276 acres of BLM-administered public lands)

The ACEC designation for the 1,276 acres of BLM-administered public lands in the area is retained.

MANAGEMENT OBJECTIVE: **The management objective for the BLM-administered public lands in the Natural Corrals ACEC is to protect and enhance the cultural, historical, recreational, and geological values in the area.**

MANAGEMENT ACTIONS: **The entire ACEC is open to consideration of oil and gas leasing with a No Surface Occupancy stipulation.**

Any surface disturbing activities that could adversely affect the relevant and important resources in the ACEC are prohibited (Table 7 and Table 2).

The ACEC is closed to surface coal mining activity and related facilities and to mineral material sales. The ACEC is open to consideration of further leasing and development by subsurface mining methods only. Any related ancillary facilities and surface disturbing activities are prohibited.

The 357-acre of mineral location withdrawal in the area will be retained. The public water reserve withdrawal in section 12 will be revoked, since these lands are now privately owned (Table 3). A filing for a BLM water right on these lands will be pursued if necessary.

The ACEC is open to consideration of such activities as fencing, interpretive signs, or construction of transportation barriers or barriers to other types of uses, to meet

resource management objectives. Management activities will be designed to increase public awareness of the significance of the area.

Cultural resource values on BLM-administered public lands will be protected. Methods include stabilizing archeological components in place and by limiting surface disturbing uses and activities that could adversely affect the cultural resources. The components may be excavated to recover archeological information if stabilization is not effective.

Crucial big game winter range seasonal restrictions and raptor nesting restrictions will be applied to activities that would be disruptive and excessively stressful to big game animals and raptors during these critical periods (see Wildlife section and Table 8).

The ACEC will be managed consistent with the Class III visual resource management classification.

The road/trail from the spring located in the SE1/4NW1/4, NE1/4SW1/4 of Section 18 and the National Register of Historic Places (NRHP) site are closed to off-road vehicle use. This 20-acre NRHP site is also closed to vehicle use for geophysical activities and by over-the-snow vehicles, and to the use of explosives and to blasting. The remainder of the ACEC is open to over-the-snow vehicles; all other off-road vehicle travel is limited to designated roads and trails.

Livestock grazing objectives and management practices will be evaluated and, as needed, modified to be consistent with the management objectives for this ACEC. Grazing systems will be designed to achieve desired plant communities and proper functioning condition of watersheds (upland and riparian) (Appendix 9.3). Prescribed management actions for livestock grazing include continuous monitoring, establishing objectives for livestock use in riparian areas, and encouraging cooperative management.

The wild horse herd use will continue and will be monitored to ensure resources are protected. No wild horse traps will be constructed in the ACEC.

In conformance with the management objectives, the opportunities for various recreational activities such as camping, picnicking, winter sports, and hunting, will be developed, maintained, preserved, or enhanced to provide for an optimum and satisfying visitor experience. A "Pack In- Pack Out" policy and a 14-day stay limit applies for camping. Camping around the spring (within 200 feet) is prohibited.

Oregon Buttes ACEC (3,450 acres of BLM-administered public lands)

The ACEC designation for 3,450 acres of BLM-administered public lands in the area is retained.

MANAGEMENT OBJECTIVES. **The management objectives for the Oregon Buttes ACEC are to: 1) protect and enhance the scenic integrity as an historic landmark; and 2) protect the significant wildlife values that are found in the area.**

MANAGEMENT ACTIONS. The ACEC is within the boundaries of three Wilderness Study Areas. Wilderness management recommendations and alternatives for this area are addressed in the *Rock Springs District Final Wilderness EIS*. The prescribed management in this overlap area is more stringent than either the Interim Management Policy or wilderness policy for designated wilderness areas; therefore, it is addressed here.

The ACEC is closed to: 1) surface disturbing activities that could adversely affect the resource values in the area; 2) mineral material sales for sand, gravel, or other types of construction or building materials; and 3) motorized vehicle travel, including those utilized for seismograph operations (Table 2 and Table 7).

The ACEC is open to consideration of such activities as fencing, interpretive signs, or construction of barriers to ensure protection to the area. Restrictions for raptors and big game parturition areas apply (see Wildlife section and Table 8).

Livestock grazing objectives and management practices will be evaluated and, as needed, modified to be consistent with the management objectives for this area. Grazing systems will be designed to achieve desired plant communities and proper functioning condition of watersheds (upland and riparian) (Appendix 9.3).

The Oregon Buttes ACEC will be managed consistent with the Class II visual resource management classification. Management actions will be designed to blend into the natural landscape and retain the existing character of the landscape.

Pine Springs ACEC (6,030 acres of BLM-administered public lands)

The 6,030 acres of BLM-administered public lands in the Pine Springs area are designated the Pine Springs ACEC.

MANAGEMENT OBJECTIVE. **The management objective for the Pine Springs ACEC is to enhance and protect cultural, historic, and prehistoric resource values.**

MANAGEMENT ACTIONS. **The Pine Springs ACEC is expanded from 90 acres to 6,030 acres.**

Approximately 5,200 acres of the Pine Springs ACEC overlap the Devils Playground/Twin Buttes Wilderness Study Area which is managed under the "Interim Management Policy for Lands Under Wilderness Review." Recommendations and alternatives for this area are addressed in the *Rock Springs District Final Wilderness EIS*. The prescribed management in this overlap area is more stringent than either the interim management policy or management for designated wilderness area, therefore, it is addressed here.

The ACEC is closed to: 1) surface disturbing activities that could adversely affect resource values or preclude

meeting ACEC management objectives; 2) mineral location and entry under the land laws (an additional withdrawal of about 2,000 acres will be pursued; 3) mineral material sales for sand, gravel, or other types of construction or building materials; and 4) off-road vehicle travel, with the exception of about 820 acres (see Table 2, Table 4 Table 7, and Table 13).

Motorized vehicle travel and some non-motorized vehicle travel along the east edge of the ACEC (about 730 acres) and the Pine Springs 90-acre site is limited to existing roads and trails (Table 13).

The Pine Springs site (90 acres) is closed to all geophysical operations and to the use of explosives and blasting.

The ACEC is open to consideration of such actions as fencing, interpretive signs, or construction of barriers to ensure protection to the area; to maintenance of the spring development; and to additional spring developments if these actions will not impact cultural values.

The ACEC will be managed consistent with the Class II visual resource management classification. Management actions on the BLM administered public lands classified as Class II visual resource management lands will be designed to retain the existing character of the landscape.

Livestock grazing objectives and management practices will be evaluated and, as needed, modified to be consistent with the management objectives for this ACEC. Grazing systems will be designed to achieve desired plant communities and proper functioning condition of watersheds (upland and riparian) (Appendix 9.3).

South Pass Historic Landscape ACEC (53,780 acres of BLM-administered public lands)

The 53,780 acres of BLM-administered public lands in the South Pass Historic Landscape area are designated the South Pass Historic Landscape ACEC. The ACEC will be evaluated to determine if it meets the criteria for nomination to the National Register of Historic Places.

MANAGEMENT OBJECTIVES. **The management objective for the ACEC is to protect the visual and historical integrity of the historic trails and surrounding viewscape.**

MANAGEMENT ACTIONS. **The South Pass Historic Landscape encompasses the viewshed along the Oregon, Mormon Pioneer, California, and Pony Express trails and the Lander Cutoff (about 16.42 miles of trail with a 6-mile wide corridor along the Oregon, Mormon Pioneer, and California trails, and a 2-mile wide corridor along the Lander Cutoff)** (Map 29).

The landscape is open to consideration of mineral leasing and mineral material sales, provided that effects to the visual and cultural resource values could be mitigated.

Most of the ACEC is also open to exploration and development of locatable minerals. A plan of operations is required to address measures to mitigate affects to the viewshed before any mining claim activity is allowed. A withdrawal of about 5,260 acres from mineral location and entry under public land laws will be pursued, if necessary.

A right-of-way grant has been authorized, but not yet issued, for the Altamont Pipeline Company to build a pipeline across public lands through the South Pass Historic Landscape Area.

Should the Altamont Pipeline grant be issued, it will be a one-time right-of-way authorization through the South Pass Historic Landscape Area. Future rights-of-way across public lands through this area (for linear utilities, transmission lines, communication sites, roads and highways, etc.), that could adversely affect the values of the historic landscape are prohibited. In addition, should the Altamont Pipeline not be built, the South Pass Historic Landscape Area will be closed to any subsequent right-of-way proposal, to either replace or substitute for the Altamont Pipeline, or any similar future proposed action across public lands in the area (Map 29).

About 33,700 acres surrounding the trails and visible from the trails are closed to surface disturbing activities that could adversely affect the viewshed. This is an exclusion area for all rights-of-way (Table 2 and Table 7).

Off-road vehicle travel is limited to designated roads and trails in the areas that are visible from the historic trails.

About 20,080 acres that are shielded by topography and not visible from the trail are open to development activities if they are subordinate to the landform and not visible from the historic trails, and provided that environmental analysis indicates that the visual integrity of the area can be maintained. Rights-of-way will be managed to avoid this area, and this area will not be considered as a preferred route for linear facilities (Table 2). Small feeder lines could be allowed if analysis indicates that the visual integrity of the area will not be compromised. Rights-of-way along roads in the area could also be allowed if they did not compromise the visual integrity of the area. The prescriptions for the management of historic trails will also apply to this area.

Off-road vehicle travel is limited to existing roads and trails in these areas that are shielded by topography.

All activities for the ACEC will be managed consistent with the Class II visual resource management classification. All management actions will be designed and located to blend into the natural landscape and to not be visually apparent to the casual viewer. The scenic values of the Highway 28 visual corridor (3 linear miles) will be protected.

Generally, vibroseis activity and shot hole activity is prohibited on and within 300 feet of the historic trails. Other geophysical operations may be allowed within the historic trails corridors (about 16.42 miles) if site specific analysis determines that no effects adverse to the visual and historical integrity of the trails will occur.

The entire ACEC is open to consideration of such activities that meet the objectives for the area. Activities include but are not limited to fencing, interpretive signs, or construction of barriers to ensure protection of the landscape.

Livestock grazing objectives and management practices will be evaluated and, as needed, modified to be consistent with the management objectives for this area. Grazing systems will be designed to achieve desired plant communities and proper functioning condition of watersheds (upland and riparian) (Appendix 9-3).

Wild horse management in the area will be consistent with the Great Divide Basin Wild Horse Herd Management Plan and the management objectives for the area. No wild horse traps will be constructed within areas that are visible from the trails.

Special Status (Candidate) Plant Species ACEC (900 acres of BLM-administered public lands)

The 900 acres of BLM-administered public lands in Special Status Plant Species areas are designated an ACEC.

MANAGEMENT OBJECTIVES. **The management objectives for special status (candidate) plant species are to: 1) prevent destruction or loss of special status (candidate) plant communities and important habitat; 2) provide opportunities for enhancing or expanding habitat; and 3) provide sufficient protection to prevent listing as threatened and endangered species.**

MANAGEMENT ACTIONS. **The BLM-administered public land areas occupied by four special status (candidate) plant species are included in the ACEC designation (making up about 58 sites involving about 900 acres of BLM-administered public lands). Additional acres may be added to the ACEC, if more of these special status (candidate) plant species or their essential habitat areas are found on BLM-administered public lands. Management and protection to actual plant locations is provided for *Arabis pusilla*, *Astragalus proimanthus*, *Descurainia torulosa*, and *Thelesperma pubescens*** (Map A).

The ACEC is closed to: 1) direct surface disturbing activities or any disrupting activities (e.g., off-site dust, air pollutants, etc.) that could adversely affect the special status plant species and their habitat; 2) the location of mining claims (withdrawal from mineral location and entry under the land laws will be pursued); 3) surface occupancy and surface disturbing activities (such as leasable mineral exploration and development activities or construction of long-term placement of facilities or structures); 4) mineral material sales; and 5) the use of explosives and blasting (see Map 23, Table 2, and Table 7).

Known locations of special status (candidate) plant species communities are closed to off road vehicle travel. Off-road vehicle travel in the remainder of the ACEC is limited to designated roads and trails.

While ensuring the maximum protection to the plant species, mineral lease parcels will be designed prior to lease issuance, with the intent of providing access to mineral resources, where possible.

Searches will be conducted to identify any additional areas where special status (candidate) plant species are located. Habitat needs will be determined and management prescriptions will be specified. The window for inventory will be mainly from May through August. As new populations are identified, site boundaries and any ACEC designation on BLM-administered public lands will be expanded to cover any new or expanded sites. Should a plant species be removed from the special status (candidate or sensitive) plant species list, the portion of any ACEC designation attributed to that plant species will be discontinued. The ACEC acreage could, thus, increase or decrease, depending upon the results of the searches or if a plant species should be de-listed. Nonessential habitat to support these plants will not be included in the ACEC designation.

Searches for special status (candidate) plant species will be required on potential habitat areas prior to implementing surface disturbing activities or projects. If plant species are not found in a potential habitat area, surface occupancy and activities will be allowed with proper guidelines and mitigation for the habitat. If plants are found, the site and its associated habitat area will be avoided and surface occupancy could be prohibited.

Special status (candidate) plant species population areas are closed to any surface disturbing fire suppression activities unless necessary for species survival. The use of fire suppression ground vehicles will be consistent with ORV designations in these areas. The type of suppression activity, if any, will be determined through site specific analysis.

Livestock grazing objectives and management practices will be evaluated and, as needed, modified to be consistent with the management objectives for this area. Grazing systems will be designed to achieve desired plant communities and proper functioning condition of watersheds (upland and riparian) (Appendix 9-3).

Wild horse management in the area will be consistent with wild horse herd management plans and management objectives for this area. No wild horse traps will be constructed within this area.

BLM will attempt to acquire approximately 1,900 acres on Pine Butte to enhance management for the mountain tansymustard (*Descurainia torulosa*) (Appendix 8-3).

Activities that meet or that do not conflict with the objectives for the ACEC could be allowed. For example, activities such as fencing, interpretive signs, or barriers for the purpose of ensuring protection of the plant species will be considered for both known and potential habitat areas.

Steamboat Mountain ACEC (43,270 acres of BLM-administered public lands)

The Steamboat Mountain area (about 43,270 acres of BLM-administered public lands) is designated an ACEC.

MANAGEMENT OBJECTIVES: **The management objectives for this ACEC are to: 1) enhance and maintain the water quality, vegetation, soil, and wildlife resources to ensure biological diversity and a healthy ecosystem; 2) maintain the unique diverse habitats (big sagebrush, aspen, limber pine, and mountain shrub communities) in the Steamboat Mountain area, especially on stabilized sand dunes along Steamboat Rim, Indian Gap, and in the Johnson, Lafonte, and Box Canyon areas; and 3) provide suitable habitat to maintain the continued existence of the Steamboat elk herd and other big game populations** (Map A).

MANAGEMENT ACTIONS: **All activities will be designed to place priority consideration on elk habitat over conflicting land uses to ensure continued elk use of the area. Steamboat Rim and the base of the rim will be managed to protect big game habitat, vegetation communities, and visual and recreation resources.**

The ACEC is closed to mineral material sales.

Leasing and development of federal coal in the area will be considered for subsurface mining methods only. Development or mine plans will be required to ensure adequate measures are taken to protect and maintain the elk herd and habitat. The location of surface facilities relating to subsurface mining will be considered on a case-by-case basis. Approximately 9,810 acres of federal coal lands with development potential occur within the Steamboat Mountain ACEC.

The ACEC is open to actions that will enhance the management objectives for the area. Actions that may be considered include such things such as fencing, interpretive signs, or construction of vehicle barriers.

Seasonal restrictions will be applied to land and resource uses as needed, to protect elk and deer during severe winter conditions and during birthing periods.

The ACEC is an avoidance area for rights-of-way. Communication sites are prohibited in the ACEC. Linear rights-of-way and geophysical activities are allowed if impacts to the elk and the unique habitats can be mitigated (Table 2).

Motorized vehicle travel is limited to designated roads and trails. Seasonal road and trail closures may be implemented as necessary to protect elk and deer during critical winter and birthing periods. Transportation planning will be completed to identify the designated roads and trails. The May 10-July 1 seasonal closure for vehicular travel in the area remains in effect to protect big game calving and fawning activity.

All activities in the ACEC will be managed consistent with the Class II and Class III visual resource management classifications. All management actions will be designed and located to blend into the natural landscape and to not be visually apparent to the casual viewer.

The unique geological and ecological features in the ACEC will be protected by limiting or prohibiting intrusions and facilities, and by providing public interpretation of these features.

Vegetation management will be designed to maintain, preserve, or enhance biological diversity while providing big game forage and cover requirements. Fire management activities will be designed to meet these objectives. Management of conifer communities will be limited to activities designed to control insects and disease. Dead standing trees will be managed under the "Animal Inn" program to help maintain biological diversity. Reseeding and reforestation within the ACEC will be done with native species. Shrub species may be included in all seed mixes.

Acquisitions will be pursued to improve manageability of the ACEC (see Lands and Realty Management section and Appendix 8-3).

Livestock grazing objectives and management practices will be evaluated and, as needed, modified to be consistent with the management objectives for the ACEC. Grazing systems will be designed to achieve desired plant communities and proper functioning condition of watersheds (upland and riparian) (Appendix 9-3).

Any additional forage that becomes available in the ACEC will be allocated to wildlife use.

Management of an area where crucial elk winter range and parturition area overlap will be addressed in the CAP for the Steamboat and Greater Sand Dunes areas. Progressive or sequential timing of development (disturbance of only one or two small areas at any given time) may be required. The vegetation and habitat management objectives described for the Steamboat ACEC will apply. These objectives are to: enhance and maintain the water quality, vegetation, soil, and wildlife resources to ensure biological diversity and a healthy ecosystem; maintain the unique diverse habitats (big sagebrush, aspen, limber pine, and mountain shrub communities) in the Steamboat Mountain area, especially on stabilized sand dunes along Steamboat Rim, Indian Gap, and in the Johnson, Lafonte, and Box Canyon areas; and provide suitable habitat to maintain the continued existence of the Steamboat elk herd and other big game populations. This important habitat overlap area is within the elk herd unit (about 27,000 acres) but lies outside and adjacent to the ACEC (Map A).

Deferred Decisions in the Steamboat Mountain ACEC

The fluid mineral leasing decisions and some locatable mineral decisions in the ACEC are deferred. Presently, leasing of unleased parcels and future parcels that may

become available for lease is contingent upon completing a coordinated activity plan (CAP) encompassing the Steamboat Mountain and Greater Sand Dunes areas. The activity plan will identify feasible access, allowable road densities, guidelines for development of other minerals, and how much and what type of development will be acceptable.

Any determination to close parts of the ACEC to mineral location and to pursue withdrawals will be deferred to completion of the CAP. In the interim, those parts of the area not covered by withdrawals will remain open to mineral location and a plan of operations will be required for any locatable mineral activity. Any plan of operations submitted by a mining claimant must address the impacts of mining on the Steamboat elk and deer herds to ensure no unnecessary or undue degradation occurs. A site specific environmental analysis will be required on each action.

Deferred actions and mitigation requirements will apply to all surface disturbing activities, not just those related to oil and gas exploration and development. Surface disturbing and disruptive activities, such as road or utility development, general construction, range improvements, well drilling, exploratory drilling, etc., will be deferred until the CAP is completed. The CAP will cover such things as transportation, drilling pad density, drilling, and operations after well completion, development and location of range improvements, recreational activities, etc.

Considerations to be Addressed in Developing the CAP

Since the area has a high development potential for oil and gas resources, some specific considerations for oil and gas development to be addressed in the CAP are identified here. Design transportation plans to minimize fragmentation of habitats by limiting roads, access, and use. Remote control operations may be needed to accomplish this. Centralizing locations for condensate may also be needed to limit trips into well locations, especially during parturition and crucial winter periods. To minimize effects to habitat, it may be necessary to place linear facilities above ground.

Vehicle use and access may not be feasible for much of the area. Access may be limited by low road densities, necessary to achieve area management objectives. To prevent conflicts with big game, recreation users, and other resources, alternative access methods may be needed (use of existing roads, pads, helicopters, etc.).

Unleased areas may be offered for lease with an NSO stipulation or, if the interior areas of such tracts are too large, they may not be leased. These NSO stipulation areas may only be accessed through directional drilling. The NSO stipulation will be used to facilitate rectifying drainage problems, under the assumption that industry is the best judge of whether technology enables access to the oil and gas resources under the terms of the lease.

Leasing with an NSO stipulation could become necessary for several reasons. First, the area is characterized by steep slopes with streams and riparian zones filling the valley bottoms. Any disturbance on the steep slopes or in the riparian zones threatens the habitat directly. Likelihood of success in producing gas is high which means production facilities will be necessary and year-round access could be required which appears to make seasonal wildlife stipulations inadequate mitigation and other mitigation is therefore necessary.

White Mountain Petroglyphs ACEC (20 acres of BLM-administered public lands)

The ACEC designation for the 20 acres of BLM-administered public lands in the White Mountain Petroglyphs area is retained.

MANAGEMENT OBJECTIVES: **The management objectives of the White Mountain Petroglyphs ACEC are to: 1) protect cultural resource values from degradation; and 2) provide for wildlife and scenic values, and Native American concerns.**

MANAGEMENT ACTIONS: **The ACEC is open to consideration of such activities as fencing, interpretive signs, or construction or placement of barriers to ensure protection of the site.** Public awareness and use of the area as an educational site is encouraged.

The ACEC is an exclusion area for: 1) surface disturbing activities that could adversely affect the resource values in the area; 2) the location of mining claims and entry under the land laws (the existing withdrawal will be retained); 3) mineral material sales for sand, gravel, or other types of construction or building materials; 4) the use of explosives and blasting; and 5) rights-of-way (see Table 2, Table 3, and Table 7).

The ACEC will be managed consistent with the Class II visual resource management classification. Management actions on the lands classified as Class II lands will be designed to retain the existing character of the landscape.

Vibroseis activities are prohibited within 300 feet of the rock art site. Other kinds of activities, such as audible disturbances, may not be allowed if the sacred Native American values at the rock art sites would be adversely affected.

Lands visible within 1/2 mile radius of the rock art site (vista) will be an avoidance area and are open for consideration of such activities as fencing, interpretive signs, or construction and placement of trail and off-road vehicle barriers to ensure protection to the rock art. Most surface disturbing activities visible within the vista are prohibited. Some activities within 1/2 mile of the rock art but not visible from the panels will be allowed, if they do not affect the rock art site (see Table 7 and Table 2).

The ACEC is closed to off-road vehicle travel including vehicles used for geophysical exploration activities and to the use of fire retardant chemicals containing dyes (Table 13).

Off-road vehicle travel, including vehicles used for geophysical exploration and fire suppression activities, within that part of the vista that lies outside of the ACEC is limited to designated roads and trails (Table 13).

Human activity, recreation use, etc., is restricted seasonally (usually from February 1 through July 31) to protect nesting raptors. Exception from this restriction may be approved if conditions described in Appendix 7 apply.

Livestock grazing objectives will be evaluated and, as needed, modified to be consistent with the management objectives for this area. Grazing systems will be designed to achieve desired plant communities and proper functioning condition of watersheds (upland and riparian) (Appendix 9-3).

See other resource management prescriptions in this document for other prescriptions and guidance that may apply to management activities in special designation management areas.

Other Management Areas

Monument Valley Management Area (69,940 acres of BLM-administered public lands)

Designation of the area as an ACEC will be deferred until a determination can be made that specific resources meet the ACEC relevance and importance criteria. Although the Monument Valley area has unique scenic features and has the apparent high potential for significant cultural and paleontological resources, there has been little systematic inventory of these features and resources. This lack of information precludes identification of specific resources that meet the ACEC relevance and importance criteria for designation of ACECs. Rather than considering ACEC designation without a more complete appreciation of the values in the area and appropriate management prescriptions, the area will be targeted for additional cultural and paleontological inventory. If specific resources are identified that meet the relevance and importance criteria, the area will then be considered for designation as an ACEC. Further public input will be solicited at that time.

MANAGEMENT OBJECTIVE. **The management objective for the Monument Valley area is to provide protection of wildlife, geologic, cultural, watershed, scenic, and scientific values (paleontological and cultural).**

MANAGEMENT ACTIONS. A portion of the Monument Valley area overlaps parts of the Adobe Town Wilderness Study Area. Wilderness management recommendations and alternatives for this area are addressed in the *Final Adobe Town-Ferris Mountain Wilderness EIS*.

The area is open to: 1) consideration for mineral leasing, exploration, and development provided mitigation can be applied to retain the resource values; 2) consideration for mineral material sales with the appropriate constraints applied to all surface disturbing activities; and 3) development and public use with necessary consideration for wildlife, raptors, cultural, watershed, and scientific values (see Table 7 and Table 8).

The area is a priority area for future cultural and paleontological inventory. A paleontological survey is required prior to surface disturbing activities. The standard Section 106 compliance process will apply to cultural resource management.

The oil shale withdrawal will remain in effect until a comprehensive study is completed for the area. If necessary, needed withdrawals for any of these lands will be identified and will be pursued for protection of their scientific or other resource values before the oil shale withdrawal is terminated (Table 4).

Surface disturbing activities, including rights-of-way, will be managed to avoid slopes greater than 25 percent and highly erosive areas unless a plan can be developed to mitigate adverse effects to the resource values (Table 2).

Off-road vehicle travel is limited to designated roads and trails. A transportation/road plan will be prepared to manage public use of the area and to keep the miles of roads and trails to a minimum.

The entire area will be managed consistent with the Class II visual resource management classification. All management actions will be designed and located to blend into the natural landscape and to not be visually apparent to the casual viewer.

No new recreation sites will be developed in the area and limited interpretive signing will be accomplished (mostly for roads and access routes).

Livestock grazing objectives and management practices will be evaluated and, as needed, modified to be consistent with the management objectives of this area. Grazing systems will be designed to achieve desired plant communities and proper functioning condition of watersheds (upland and riparian) (Appendix 9-3).

Wild horse herd management will be consistent with the wild horse herd management plan for the area. Construction of wild horse traps and range improvements will be allowed provided the management objectives of the area can be met. Areas with highly erosive soils or slopes are not suitable for wild horse traps and range improvements. Improvements will be considered with protection provided for slopes, raptors, cultural, scientific, scenic, and watershed resources.

Pine Mountain Management Area (64,200 acres of BLM-administered public lands)

The area is not designated as an ACEC, but will be maintained as a geographic management unit (see Glossary). The Pine Mountain management area is not recommended as part of the Greater Red Creek ACEC because Pine Mountain does not contain the same sensitivity of resources found in Greater Red Creek, even though the watershed resources in this area are interconnected with those of Greater Red Creek. The area does not contain populations of the Colorado River cutthroat trout that the Greater Red Creek area has and thus will not need to receive the same management emphasis.

MANAGEMENT OBJECTIVES: **The management objectives for the area are to: 1) improve watershed condition and enhance watershed values; 2) improve riparian areas to proper functioning condition, as a minimum; 3) provide opportunities for dispersed recreation uses in the area consistent with the primary watershed, riparian, and wildlife objectives; 4) maintain and protect important wildlife habitat, especially raptor habitat; and 5) reduce erosion.**

The Pine Mountain area will be managed as an avoidance area for rights-of-way and surface disturbing activities (Table 7 and Table 2).

The area is open to mineral leasing and related exploration and development activities with appropriate mitigation requirements (controlled surface use) applied to protect all other resource values.

Livestock grazing objectives and management practices will be re-evaluated and, as needed, modified to be consistent with the watershed, water quality, fisheries, recreation, and riparian management objectives. Grazing systems will be designed to achieve desired plant communities and proper functioning condition of watersheds (upland and riparian) (Appendix 9-3).

Reintroduction of Colorado River cutthroat trout and other native species will be considered, if consistent with watershed and riparian objectives.

Activities that preclude the achievement or maintenance of proper functioning condition of uplands and riparian areas, and achievement of other management objectives are prohibited.

Forested areas will be managed primarily toward meeting the watershed, riparian, wildlife, and recreation objectives for the area. Timber harvest levels and logging practices will be designed to help meet those objectives.

Any increase in vegetative production will be reserved for watershed stabilization and improvement purposes.

Management of habitat for special status species, if identified, will be developed on a case-by- case basis.

Restrictions for protection of raptors, big game crucial winter range, and big game calving/fawning areas will apply (see Wildlife section and Table 8). Exceptions to these restrictions may be approved if conditions and criteria described in Appendix 7 apply.

Travel and transportation of firefighting equipment is limited to designated roads and trails. Use of heavy firefighting equipment is prohibited in areas closed to surface disturbing activities. Fire management, suppression needs, and prescribed burning in timber stands will be determined on a case-by-case basis to ensure timber stands are maintained in healthy condition and the "snow fence effect" is preserved. Fire management in other areas will be determined on a case-by-case basis to ensure that area objectives are met.

Aquifer recharge zones in the area will be managed to protect groundwater quality and aquifer function (Map 26). Protection includes limiting road density, surface disturbing activities, and surface occupancy in identified recharge zones to maintain them in a healthy and functioning condition.

Vegetation treatments will be designed to help meet and be consistent with management objectives for the area. Treatments in the inner gorge of intermittent and ephemeral drainages will be designed to leave mosaic patterns of treated and untreated areas of vegetation.

Herbicide loading sites must be located at least 500 feet from surface water or 500 feet from riparian areas (whichever is greater). Herbicide treatment of noxious weeds on BLM-administered public lands will require a site specific analysis to help determine whether or not such actions will be authorized.

The entire area will be managed consistent with the Class III visual resource management classification.

Camping is allowed within 200 feet of water if damage to watershed, water quality, and wildlife values can be avoided. Otherwise, camping will be located at further distances from water.

Recreation developments will be kept to a minimum and designed primarily for the protection of resource values the prevention of resource damage, and for public health and safety.

Off-road vehicle travel is limited to designated roads and trails. A transportation plan will be completed. Some existing roads and trails in the area may be closed and reclaimed as a result of transportation planning. Transportation planning will include consideration of proper road location, construction, reconstruction, design, and reclamation. New road construction will be reviewed on a case-by-case basis for conformance with area and transportation plan objectives. In some cases, consideration of a "no net gain in roads" factor may be an effective way to help meet objectives in the area.

The area is open to consideration of activities that conform with objectives for the area. Such activities may include fencing, interpretive signs, transportation or other use barriers, and sediment or erosion control structures to meet resource management objectives. Any actions to be conducted in the Pine Mountain Area will be considered and analyzed on a case-by-case basis. Controls may be placed on the amount, sequence, timing, or level of activity or development that may occur to assure that the actions will be consistent with or help to meet the management objectives for the area. This may result in such things as limiting the number of roads and other construction or other surface disturbing activities (such as well pads) or deferring activities or development in some areas until other areas have been reclaimed and restored to previous uses (Appendix 5-2).

Management Actions Unique to the Four J Basin Portion of the Pine Mountain Management Area

To meet management objectives, surface occupancy and surface disturbance on BLM- administered public lands will be severely limited or prohibited. No surface occupancy is allowed on the escarpment or toe slopes. Due to the highly erosive nature of these soils, all surface disturbing activities should be designed for zero runoff into the established drainages.

Mineral leasing is allowed provided management objectives could be met and unacceptable impacts would not occur.

Livestock grazing will be managed to allow for optimum vegetation recovery in the long term and for uplands and riparian areas to reach proper functioning condition as a minimum. If necessary, forage will be reserved for watershed purposes. Full consideration will be given to maintaining and protecting important wildlife habitat.

Any determinations to close parts of the area to mineral location and pursue withdrawals will be deferred to completion of a comprehensive activity or implementation plan for the area. In the interim, those parts of the area not covered by existing withdrawals will remain open to mineral location (Table 4).

Human activity, recreation use, etc. will be restricted seasonally (usually from February 1 through July 31), where needed to protect nesting raptors. Exceptions to this restriction may be approved if conditions described in Appendix 7 apply.

Project components, such as permanent and high profile structures, i.e., buildings, storage tanks, powerlines, roads, well pads, etc. are prohibited within an appropriate distance of active raptor nests. The appropriate distance (usually less than 1/2 mile) will be determined on a case-by-case basis and may vary depending upon the species involved, natural topographic barriers, and line-of-sight distances, etc. Placement of facilities, "on" (very low profile) or below ground, and temporary disruptive activities, such as occur with pipeline construction, seismic activity, etc., could be granted exceptions within 1/2 mile of active raptor nests, in certain circumstances (see Wildlife section and Appendix 7).

Red Desert Watershed Management Area (341,060 acres of BLM-administered public lands)

The Red Desert Watershed area was not found to contain values that meet the relevance and importance criteria; therefore, it is not recommended for ACEC designation.

MANAGEMENT OBJECTIVE: **The management objective for the Red Desert Watershed Area is to manage for all resource values in the Red Desert area with emphasis on protection of visual resources, watershed values, and wildlife resources and to provide large areas of unobstructed views for enjoyment of scenic qualities.** This will be accomplished through facility design and placement and using topography to shield activities, using neutral colors so facilities blend with the landscape, identification of backcountry byways, and providing viewing points for the public (Map A).

The Red Desert Watershed Area includes BLM-administered public lands north of the checkerboard boundary within the Great Divide Basin.

A portion of the Red Desert Watershed Area encompasses portions of six wilderness study areas (Alkali Draw, Alkali Basin-East Sand Dunes, Honeycomb Buttes, Oregon Buttes, Red Lake, and South Pinnacles). Wilderness management recommendations and alternatives are addressed in the *Rock Springs District Wilderness Final EIS*.

Portions of the Oregon Buttes ACEC and some special status plant species are located within the Red Desert Watershed Area. Specific management prescriptions for those areas may be found in their respective sections of this document.

MANAGEMENT ACTIONS: **The Red Desert Watershed Area will be managed to ensure developments and activities conform with the concepts of open space. The area will be managed consistent with the Class II and Class III visual resource management classifications.** Site specific visual resource reviews (inventories) will be conducted prior to allowing activities that may affect these values.

Surface disturbing activities, mineral exploration and development, and seismic activities will continue where acceptable subject to the management guidelines provided in the Minerals section. Approximately 2,500 acres are closed to surface disturbing activities to protect special status plant species and to protect relevant and important resource values in the Oregon Buttes ACEC (Table 7).

Restrictions for protection of raptors, big game crucial winter range, and big game calving/fawning areas will apply (see Wildlife section and Table 8). Exceptions to these restrictions may be approved if conditions and criteria described in Appendix 7 apply.

Approximately 2,860 acres of Federal coal lands with development potential in the area are open to consideration of coal leasing and development (see Coal Decisions). Most of the area is open to consideration of salable minerals activities and mineral location.

The coal and stock driveway withdrawals will be revoked (Table 3).

The preferred route for rights-of-way in the management area is the east-west window described in the Lands and Realty Management section. Other areas will be considered if in conformance with wildlife, watershed, cultural, and scenic resource management objectives. Overhead powerlines are prohibited in the area (Table 2).

Approximately 95,580 acres are closed to off-road vehicle travel, and the remainder of the area is limited to

designated roads and trails. Access for motorized vehicle travel will be managed to provide access opportunities in conformance with other resource objectives (see Map 20).

Recreational activities, opportunities, and uses will be maintained. A Tri-Territory Loop and Red Desert backcountry byway will be established.

Livestock grazing objectives will be evaluated and, as needed, modified to be consistent with the management objectives for this area. Grazing systems will be designed to achieve desired plant communities and proper functioning condition of watersheds (upland and riparian) (Appendix 9-3).

Wild horse management in the area will be consistent with the Great Divide Basin Wild Horse Herd Management Plan and the management objectives for the area.

Vegetation resources in the area will be managed for continued livestock grazing, and wild horse and wildlife uses in accordance with the management objectives for those resource values.

Sugarloaf Basin Management Area (85,880 acres of BLM-administered public lands)

The Sugarloaf Basin area is not designated an ACEC, but will be maintained as a geographic management unit. The area is not recommended as part of the Greater Red Creek ACEC because Sugarloaf Basin does not contain the same sensitivity of resources found in Greater Red Creek, even though the watershed resources in the area are interconnected with those of Greater Red Creek. The area does not contain populations of the Colorado River cutthroat trout that the Greater Red Creek area has and thus does not need to receive the same management emphasis. The watershed, scenic, and wildlife resources are determined to be neither more than locally significant nor fragile, sensitive, or rare, when compared to those values found in Currant, Sage, and Red Creeks.

MANAGEMENT OBJECTIVES. **The management objectives for the area are to: 1) improve watershed condition and enhance watershed values; 2) improve riparian areas to proper functioning condition, as a minimum; 3) provide opportunities for dispersed recreation uses in the area consistent with the primary watershed, riparian, and wildlife objectives;** and 4) maintain and protect important wildlife habitat.

MANAGEMENT ACTIONS. **The Sugarloaf Basin area will be managed as an avoidance area for rights-of-way and surface disturbing activities. However, a north-south right-of-way window, parallel to the east side of the Flaming Gorge National Recreation Area, will be established (see Table 2 and Table 7).**

The area is open to mineral leasing and related exploration and development activities with appropriate mitigation requirements applied to protect all other resource values.

Livestock grazing objectives will be re-evaluated and, as needed, modified to be consistent with the watershed, water quality, fisheries, recreation, and riparian management objectives. Grazing systems will be designed to achieve desired plant communities and proper functioning condition of watersheds (upland and riparian) (Appendix 9-3).

Activities that preclude the achievement or maintenance of proper functioning condition of uplands and riparian areas and achievement of other management objectives in the area are prohibited.

Forested areas will be managed primarily toward meeting the watershed, riparian, wildlife, and recreation objectives for the area. Timber harvest levels and logging practices will be designed to help meet those objectives.

Any increase in vegetative production will be reserved for watershed stabilization and improvement purposes.

Management of habitat or special status species, if identified, will be developed on a case-by-case basis.

Restrictions for protection of raptors, big game crucial winter range, and big game calving/fawning areas will apply (see Wildlife section and Table 8). Exceptions to this restriction may be approved if conditions and criteria described in Appendix 7 apply.

Travel and transportation of firefighting equipment is limited to designated roads and trails. Fire management, suppression needs, and prescribed burning in timber stands will be evaluated on a case-by-case basis to ensure timber stands are maintained in healthy condition and the "snowfence effect" is preserved. Fire management in other areas will be evaluated on a case-by-case basis to ensure that area objectives will be met.

Aquifer recharge zones in the area will be managed to protect groundwater quality and aquifer function (Map 26). Protection includes limiting road density, surface disturbing activities, and surface occupancy in identified recharge zones to maintain them in a healthy and functioning condition.

Vegetation treatments will be designed to help meet and be consistent with all management objectives for the area. Treatments in the inner gorge of intermittent and ephemeral drainages will be designed to leave mosaic patterns of treated and untreated areas of vegetation.

Herbicide loading sites must be located at least 500 feet from surface water or 500 feet from riparian areas (whichever is greater). Herbicide treatment of noxious weeds on BLM-administered public lands will require a site specific analysis to help determine whether or not such actions will be authorized.

The area will be managed consistent with the Class II and Class III visual resource management classifications.

Camping is allowed within 200 feet of water if damage to watershed, water quality, and wildlife values can be

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avoided. Otherwise, camping will be located at further distances from surface water.

Recreation developments will be kept to a minimum and designed primarily for the protection of resource values, the prevention of resource damage, and for public health and safety.

Motorized vehicle use is limited to designated roads and trails. A transportation plan will be completed. Some existing roads and trails in the area may be closed and reclaimed as a result of transportation planning. Transportation planning will include consideration of proper road location, construction, reconstruction, design, and reclamation. New road construction will be reviewed on a case-by-case basis for conformance with area and transportation plan objectives. In some cases, consideration of a "no net gain in roads" factor may be an effective way to help meet objectives in the area.

The area is open to consideration of activities that conform with objectives for the area. Such activities may include fencing, interpretive signs, construction of placement of transportation barriers, and sediment or erosion control structures to meet resource management objectives. Any actions proposed in the Sugarloaf Basin area will be considered and analyzed on a case-by-case basis. Controls may be placed on the amount, sequence, timing, or level of activity or development that may occur to assure that the actions will be consistent with or help to meet the management objectives for the area. This may result in such things as limiting the number of roads and other construction or other surface disturbing activities (such as well pads) or deferring activities or development in some areas until other areas have been reclaimed and restored to previous uses (Appendix 5-2).

See other resource management prescriptions in this document for other prescriptions and guidance that may apply to management activities in these Other Management Areas.

Management of BLM-Administered Public Lands That Meet the Wild and Scenic Rivers Suitability Factors

In conducting the wild and scenic rivers review process, application of the wild and scenic rivers eligibility criteria, determining the tentative wild and scenic rivers classifications, and the application of the wild and scenic rivers suitability factors, focused on the BLM lands within a 1/2 mile wide corridor along the review segment of the river (i.e., approximately 1/4 mile wide along each bank of the river along the length of the review segment). The public lands within and adjacent to this corridor (identified on Map 30) will be considered in future site specific, activity or management implementation planning to fulfill the stated management objective (Appendix 9-3).

MANAGEMENT OBJECTIVE: **The management objective for the BLM-administered public lands that meet the wild and scenic rivers suitability factors is to maintain or enhance their outstandingly remarkable values and wild and scenic rivers classifications, until Congress considers them for possible designation.**

The BLM-administered public lands along the Green River do not meet the wild and scenic rivers suitability factors. This determinations is based upon the inability to manage these small and scattered parcels of public land as a logical wild and scenic river segment. However, it is recommended that a cooperative study among non-Federal land owners, BLM, BOR, and USFWS be conducted to determine wild and scenic river eligibility and suitability along a sufficiently continuous segment of the Green River that could be logically managed as a wild and scenic river. BLM will also cooperate on the formation and management of a greenbelt area along the Green River.

Seven BLM-administered public land parcels along the Sweetwater River (involving about 9.7 miles of the river) were found to meet the wild and scenic rivers suitability factors to be given further consideration for inclusion in the Wild and Scenic Rivers System (Map 30). Of the 9.7 miles of river involved, the BLM lands along 5.8 miles are classified as wild, the BLM lands along 0.5 miles are classified as scenic, and the BLM lands along 3.4 miles are classified as recreational (Map 30) (see Appendix 4-1 and Appendix 4-2).

Interim Management on the BLM-Administered Public Land Parcels Identified as Meeting the Wild Classification (involving 5.8 miles of the river) **will focus on maintaining or enhancing the outstandingly remarkable historic, scenic, and recreational values and maintaining the relatively primitive, pristine, rugged, and unaltered character of the area. Any activities that would conflict with this objective and any physical or visual intrusions on the public lands involved are prohibited.**

Temporary cultural and paleontology activities (e.g., recordation, sampling, testing, stabilization, rehabilitation, and reconstruction) may be allowed on the public lands, if the outstandingly remarkable values are maintained and if no permanent adverse impacts would occur to either the public lands directly involved or any other lands within or adjacent to the corridor.

The public lands are closed to mineral leasing and related exploration and development activities. Existing mineral leases on these lands will be allowed to expire.

The public lands are closed to mineral location (e.g., filing of mining claims and related exploration and development). A withdrawal from land disposal, mineral location, and entry under the land laws will be pursued (Table 4). Valid existing rights (existing mining claims) will be recognized.

The public lands are closed to surface disturbing activities such as construction of recreational developments (e.g., campgrounds, put-in or take-out areas, or other such facilities), wildlife habitat improvements, range improvements, rights-of-way, mineral development, etc. Hiking trails may be built, "by hand labor", if there is a demand for them and they conform with the management objective for these lands.

The public lands are closed to recreational dredging for minerals, such as gold, and to mineral material sales.

Geophysical exploration is limited to foot access and use of surface cables on the public lands (use of motorized or non-motorized vehicles is prohibited). Surface charges may be allowed if site specific analyses determine no permanent adverse impacts would occur.

The public lands are closed to land disposal actions. Exchanges of public lands "outside the corridor" could be considered for acquiring private or state lands within the corridor or between the public land parcels along the river; however, public lands within the corridor will not be exchanged (Appendix 8-3).

The public lands are an exclusion area for rights-of-way (Table 2).

Water impoundments or diversions are prohibited on the public lands.

The public lands are closed to motorized and non-motorized vehicles. Hikers will be required to "pack it out"; there will be no garbage facilities. Campfires are permitted in keeping with current fire management regulations.

Any fire suppression activities on public lands will use "light-on-the-land" techniques. No motorized or non-motorized vehicle ground equipment will be used to suppress fires. Helicopter bucket drops and the use of chainsaws may be allowed if no permanent impacts would occur.

The public lands are closed to commercial timber sales and harvesting. Cutting of trees will only be allowed with written permission or in association with safety and environmental protection requirements (such as clearing trails, visitor safety, and fire control).

Increases in active grazing preference and construction of new range improvements on the public lands are prohibited.

The public lands are closed to vegetation treatment or manipulation by other than hand or aerial seeding methods using species that will restore natural vegetation. Undesirable and exotic species could be removed by hand.

The public lands will be managed under a Class II VRM classification.

Interim Management on BLM-Administered Public Land Parcels Identified as Potentially Meeting the Scenic Classification (involving 0.5 miles of river) **will focus on maintaining or enhancing the outstandingly remarkable historic, scenic, and recreational values and the relatively unmodified character of the area in a near-natural setting. Any activities that conflict with this objective are prohibited.** Some intrusions on the public lands involved may be allowed if they are not readily evident or are short lived, and do not adversely affect maintaining the scenic classification.

Temporary cultural and paleontology activities (e.g., recordation, sampling, testing, stabilization, rehabilitation, and reconstruction) may be allowed on the public lands, if the outstandingly remarkable values are maintained and if no permanent adverse impacts would occur to either the public lands directly involved or any other lands within or adjacent to the corridor.

The public lands are closed to mineral leasing and related exploration and development activities. Existing mineral leases on these lands will be allowed to expire.

The public lands are closed to mineral location (e.g., filing of mining claims and related exploration and development). A withdrawal from mineral location and entry under the land laws will be pursued (Table 4). Valid existing rights (existing mining claims) will be recognized.

The public lands are closed to recreational dredging for minerals such as gold and to mineral material sales.

Geophysical exploration is allowed if a site specific analysis determines no adverse effects will occur. Vehicles will be restricted to designated roads and trails only. Foot access is required off of existing roads. Surface charges may be allowed if site specific analyses determine no permanent adverse impacts will occur.

The public lands are closed to land disposal actions. Exchanges of public lands "outside the corridor" could be considered for acquiring private or state lands within the corridor or between the public land parcels along the river; however, public lands within the corridor will not be exchanged.

The public lands are closed to most surface disturbing activities such as construction of rights-of- way, mineral development, most types of recreation site development, and wildlife habitat and range improvements. Some recreation developments (such as put in or take out areas), and wildlife and range improvements may be allowed on the public lands so long as there is no substantial adverse effect to the natural-like appearance of the lands within the river corridor and their immediate environment.

Water impoundments or diversions are prohibited on the public lands.

The public lands are an exclusion area for rights-of-way (Table 2).

Motorized and non-motorized vehicles are restricted to using designated roads and trails. Hiking trails may be built if there is a demand for them and they conform with the objective for the scenic classification. Mountain biking is allowed to the extent that no adverse effects occur. Hikers will be required to "pack it out"; there will be no garbage facilities. Campfires are permitted in keeping with current fire management regulations.

Any fire suppression activities on the public lands will use "light-on-the-land" techniques. No motorized or non-motorized vehicle ground equipment off of designated roads and trails will be used to suppress fires. Helicopter bucket drops and the use of chainsaws may be allowed if no permanent impacts would occur.

The public lands are closed to commercial timber sales and harvesting. Cutting of trees will only be allowed with written permission or in association with safety and environmental protection requirements (such as clearing trails, visitor safety, and fire control).

Increases in active grazing preference on the public lands are prohibited. Range improvements will only be allowed if they are compatible with objectives for the scenic river classification.

The public lands are closed to vegetation treatment or manipulation by other than hand or aerial seeding methods using species that will restore natural vegetation. Undesirable and exotic species could be removed by hand.

The public lands will be managed under a Class II VRM classification.

Interim Management on BLM-Administered Public Land Parcels Identified as Potentially Meeting the Recreational Classification (involving 3.4 miles of river) **will focus on maintaining or enhancing the outstandingly remarkable historic, scenic, and recreational values in a modestly modified setting and retain the character of the area. Any activities that would conflict with this objective are prohibited.** Some intrusions may be allowed if they will not adversely affect the characteristics of the area and the maintenance of the recreational classification.

Temporary cultural and paleontology activities (e.g., recordation, sampling, testing, stabilization, rehabilitation, and reconstruction) may be allowed on the public lands, if the outstandingly remarkable values are maintained and if no permanent adverse impacts would occur to either the public lands directly involved or any other lands within or adjacent to the corridor.

The public lands are closed to mineral leasing and related exploration and development activities. Existing mineral leases on these lands will be allowed to expire.

The public lands are closed to mineral location (e.g., filing of mining claims and related exploration and development). A withdrawal from mineral location and entry under the land laws will be pursued (Table 4). Valid existing rights (existing mining claims) will be recognized.

The public lands are closed to land disposal actions. Exchanges of public lands "outside the corridor" could be considered for acquiring private or state lands within the corridor or between the public land parcels along the river; however, public lands within the corridor will not be exchanged (Appendix 8-3).

The public lands are closed to recreational dredging for minerals, such as gold, and to mineral material sales.

Geophysical exploration is allowed if a site specific analysis determines no adverse effects would occur. Vehicles will be restricted to designated roads and trails only. Foot access is required off of existing roads. Surface charges may be allowed if site specific analyses determine no permanent adverse impacts would occur.

The public lands are closed to most surface disturbing activities such as construction of rights-of- way and mineral development. Some surface disturbing activities may be allowed. Activities such as recreational developments (development and improvement of campgrounds, put in or take out areas, etc.), range improvements, and wildlife improvements may be considered, provided such activity is done in a manner that minimizes surface disturbance, sedimentation, pollution, and visual impairment, and if a site specific analysis determines that no adverse effects would occur.

Water impoundments or diversions are prohibited on the public lands.

The public lands are an exclusion area for rights-of-way (Table 2).

Motorized and non-motorized vehicles are restricted to using designated roads and trails. Hiking trails may be built if there is a demand for them and they conform with the objective for the recreational classification. Mountain biking is allowed to the extent that no adverse effects would occur. Public use and access may be regulated and distributed where necessary to protect and enhance outstandingly remarkable values.

Fires on public lands will be suppressed using appropriate techniques provided no permanent impacts would occur. Motorized and non-motorized vehicle ground equipment on designated roads and trails, the use of chainsaws, and helicopter bucket drops may be used to suppress fires. Campfires are permitted in keeping with current fire management regulations.

The public lands are closed to commercial timber sales and harvesting. Firewood collection for camp fires and some post and pole cutting will be allowed provided no substantial adverse effects occur to the public lands.

Increases in active grazing preference are prohibited. Range improvements will only be allowed if they are compatible with the objectives for recreational river classification.

The public lands are closed to vegetation treatment or manipulation by other than hand or aerial seeding methods using species that will restore natural vegetation. Undesirable and exotic species could be removed by hand.

The public lands will be managed under a Class II VRM classification.

See other resource management prescriptions in this document for other prescriptions and guidance that may apply to management activities of Wild and Scenic Rivers on BLM-administered public lands.

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GLOSSARY

ACTIVE DUNE. A hill or accumulation of sand shaped by wind. A dune is active when constantly changing form under wind currents. Generally, an active dune is bare of vegetation.

ACTIVE PREFERENCE. Or grazing preference is defined in the grazing regulations as "the total number of animal unit months of livestock grazing on public lands apportioned and attached to base property owned or controlled by a permittee or lessee." Grazing preference is displayed on a permit in three columns: Total, Suspended, and Active. The active level is the only level of AUMs that can be used by a permittee on the permit in an allotment. Suspended AUMs are those AUMs that are held in suspension mainly because of production surveys that stated that these AUMs were not present. They cannot be used by the permittee. Total preference is active plus suspended.

ACTIVITY FUELS. Fuels resulting from, or altered by, forestry practices such as timber harvest or thinning, as opposed to naturally created fuels.

AIR POLLUTION. The general term alluding to the undesirable addition of substances (gases, liquids, or solid particles) to the atmosphere that are foreign to the natural atmosphere or are present in quantities exceeding natural concentrations.

AIR QUALITY CONTROL REGION. A primary air quality administrative area, designated in accordance with the provisions of the 1970 Clean Air Act, on the basis of geographical and meteorological considerations.

ALKALINE-SALINE SOIL. Soil with a pH greater than 7.0 throughout most or all of it occupied by plant roots, and enough soluble salts to impair plant productivity.

ALKALINE SOILS. Any soil that has a pH value of greater than 7.0. However, common usage when referring to problem soils (i.e., for revegetation) is usually for soils with a pH of 8.5 or higher, often accompanied by an exchangeable sodium content of 15 percent or higher.

ALLOWABLE BURNED AREA. Maximum average area burned over a specified period of year that is considered an acceptable loss for a specified area under organized fire suppression.

ALLOWABLE CUT. The amount of timber considered available for cutting during a specified period (year, decade, etc.).

ALLUVIUM. Unconsolidated fragments from rocks or minerals, moved from their place of origin and deposited by running water; including gravel, sand, silt, clay, and mixtures of these materials.

ANIMAL UNIT MONTH (AUM). The amount of forage to sustain one mature cow or the equivalent, based on an average daily forage consumption of 26 pounds of dry matter per day. The equivalent animal units for other ungulate species, based on a weight conversion (3 percent body weight per day), are: 10.5 for antelope; 7.6, deer; 2.1, elk; 1.2, moose; 0.9, wild horses; and 5.2, sheep.

ANTICLINAL. Inclined toward each other, an anticline is a unit of folded strata that is convex upward. In simple anticlines the beds are oppositely inclined. In more complex types the limbs of strata may dip in the same direction.

APPROPRIATE MANAGEMENT LEVEL (AML). The optimum number of wild horses that provides a thriving natural ecological balance on the public range.

AVAILABLE FUEL. That portion of the total fuel that would actually be consumed under specified burning conditions. Unless otherwise stated, this term is assumed to be just the fuel consumed in the fire front and is used in this context in the models incorporated in NFDRS and BEHAVE. Although generally ignored, the fuel consumed behind the fire front by intermittent flaming and glowing combustion is also a part of available fuel and can in some instances comprise a significant portion of the total.

AVERAGE WORST YEAR. Third worst fire season in the last ten, as determined by the sum of daily danger or burning indices during the regularly financed fire season; use the same number of days each year to determine these totals.

AVOIDANCE AREA. Areas on public lands where future rights-of-way may be granted only when no feasible alternative route or designated right-of-way corridor is available.

BACKFIRE. (1) as used in fire suppression activities, see SUPPRESSION FIRING. (2) as used in prescribed burning activities (to designate the fire movement in relation to wind or slope), see BACKING FIRE.

BADLAND. Surface features characterized by sharp erosional scar sculpture of weak rocks, forming steep, furrowed, and fantastically shaped hills, labyrinth-like drainage patterns, and normally dry watercourses.

BASE AREA (NFDRS). An area representative of the major fire problems on a protection unit. Base fuel model and slope class are chosen from the base area.

BASE FUEL MODEL (NFDRS). A representation of the vegetative cover and fuel in a base area; used in the calculation of fire danger rating.

BIODIVERSITY. See BIOLOGICAL DIVERSITY.

BIOLOGICAL DIVERSITY. Refers to the variety of life and its processes and includes the variety of living organisms, the genetic differences among them, and the communities and ecosystems in which they occur.

BIOLOGICAL UNIT/BIOREGION. A territory defined by a combination of biological, social, and geographic criteria, rather than geopolitical considerations; generally, a system of related, interconnected ecosystems. In most cases, formerly called a "herd unit."

BOARD FOOT. A measurement of the volume of a tree which is based on a block of wood one foot on each side and one inch thick.

BOARD OF REVIEW. A board or committee selected to review results of fire suppression action on a specific unit or the specific action taken on a specific fire in order to identify reasons for both good and poor action and to recommend or prescribe ways and means of doing a more effective and efficient job.

BROADCAST BURNING. Allowing a prescribed fire to burn over a designated area within well-defined boundaries to achieve some land management objectives.

BRUSH FIRE. A fire burning in vegetation characterized by shrubs or small trees (cf. forest fire, range fire, wildfire).

BRUSH MANAGEMENT. Manipulation of stands of brush by manual, mechanical, chemical, or biological means or by prescribed burning for the purpose of achieving land management objectives.

GLOSSARY

BURNING INDEX (BI) A relative number related to the contribution that fire behavior makes to the amount of effort needed to contain a fire in a specified fuel type. Doubling the BI indicates twice the effort will be required to contain a fire in that fuel type as was previously required providing all other parameters are held constant.

BURNING PERIOD That part of each 24-hour period when fires spread most rapidly, typically from 1000 hours to sundown.

CAMPING Overnight occupancy on public land.

CANDIDATE PLANT SPECIES CATEGORIES (definitions of):

Category 1. Plants for which the USFWS currently has on file substantial information on biological vulnerability and threat(s) to support the appropriateness of proposing to list them as endangered or threatened species. Presently, all data are being gathered concerning precise habitat needs and, for some of the plants, concerning the precise boundaries for critical habitat designations. Development and publication of proposed rules on these plants are anticipated, but because of the large number of such plants, could take some years.

Category 2. Plants for which information now in possession of the USFWS indicates that proposing to list them as endangered or threatened species is possibly appropriate, but for which substantial data on biological vulnerability and threat(s) are not currently known or on file to support the immediate preparation of rules. Further biological research and field study usually will be necessary to ascertain the status of the plants in Category 2, and some of the plants are of uncertain taxonomic validity. It is likely that some of these will not warrant listing, while others will be found to be in greater danger of extinction than some plants in Category 1.

Category 3. Plants that have proven to be more abundant or widespread than was previously believed and/or those that are not subject to any identifiable threat. Should further research or changes in land use indicate significant decline in any of these plants, they may be reevaluated for possible inclusion in Category 1 or 2.

CANDIDATE SPECIES A plant or animal species whose numbers are declining so rapidly that official listing as threatened or endangered pursuant to Section 4 of the Endangered Species Act may become necessary as a conservation measure. Declines may be due to one or more factors, including: destruction, modification, or curtailment of the species' habitat or range; overutilization for commercial, sporting, scientific, or educational purposes; disease or predation; the inadequacy of existing regulatory mechanisms; or other factors.

CASUAL USE Activities that involve practices which do not ordinarily lead to any appreciable disturbance or damage to lands, resources, and improvements. For example, activities which do not involve use of heavy equipment or explosives and which do not involve vehicular movement except over established roads and trails are casual use.

CAUSES OF FIRES For statistical purposes, fires are grouped into broad fire cause classes: lightning, campfire, smoking, debris burning, incendiary, equipment use, railroad, children, and miscellaneous.

CHAIN Unit of measure in land survey, equal to 66 feet (80 chains equal 1 mile). Commonly used to report fire perimeters and other fireline distances, this unit is popular in fire management because of its convenience in calculating acreage (e.g., 10 square chains equal one acre).

CHECKERBOARD LAND PATTERN Alternating sections of federally owned lands with private or State lands on either side of the Union Pacific railroad in southwestern Wyoming. This pattern of land ownership looks like a checkerboard on maps using different colors to show land status.

CHERRYSTEMMED A WSA boundary which is drawn around a dead-end road or other linear feature to exclude it from the WSA.

CLINOPTILOLITE A zeolite mineral occurring in the Bridger Formation; a hydrous alumino-silicate formed by the alteration of volcanic tuffs and glasses. Zeolites are used as absorbents in drying, in air separation, in water treatment, in the paper industry, as a dietary supplement for livestock, and as a soil conditioner.

CONDITIONS OF APPROVAL (COAs) Conditions or provisions (requirements) under which a site specific surface disturbing or human presence activity (APD, sundry notice, ROW, etc.) is approved.

CONSUMPTIVE USE Recreation activities which consume natural resources. Hunting and fishing are regarded as consumptive recreation because wildlife are consumed. Rockhounding is consumptive because nonrenewable resources are removed.

CONTAIN A FIRE Take fire suppression action as needed which can reasonably be expected to keep the fire within established boundaries under prevailing conditions.

CONTAINMENT Completion of a control line around a fire and any associated spot fires which can reasonably be expected to stop the fire's spread.

CONTROL A FIRE Complete a control line around a fire, any spot fire therefrom, and any interior island to be saved; burn out any unburned area adjacent to the fire side of the control lines; and cool down all hot spots that are immediate threats to the control line, so that the line can be expected to hold under foreseeable conditions. Implies more thorough suppression than containing a fire.

CONTROL LINE Comprehensive term for all constructed or natural barriers and treated fire edges used to control a fire.

CONTROL TIME Elapsed time from the first work on a fire until holding the control line is assured (sometimes still measured only from the time of containing a fire).

CONTROLLED SURFACE USE (CSU) Surface occupancy or use will be restricted or prohibited unless the operator and surface managing agency arrive at an acceptable plan for mitigation of anticipated impacts. Identified resource values require special operational constraints that may modify the lease rights. Controlled Surface Use is used for operating guidance, not as a substitute for the NSO or timing limitation stipulations.

CRUCIAL RANGE Crucial range can describe any particular seasonal range or habitat component (often winter or winter/yearlong range in Wyoming) but describes that component which has been documented as the determining factor in a population's ability to maintain itself at a certain level (theoretically at or above the population objective) over the long term. Example: The total crucial winter range for an elk herd unit should be available, relatively intact, and allow a population at objective to survive the winter in adequate body condition and to maintain average reproductive rates 8 out of 10 years.

GLOSSARY

CULTURAL RESOURCE INVENTORY LEVELS A three-tiered process for discovering, recording, and evaluating cultural resources.

Class I - a review of existing literature and oral informant data together with an analysis of a specific geographic region (e.g., an area of potential effect, drainage basin, resource area, etc.).

Class II - A sampling survey usually aimed at developing and testing a predictive model of cultural resource distribution.

Class III - an on-the-ground survey to discover, record, and evaluate cultural resources within a specific geographic area (e.g., usually an area of potential effect for a proposed undertaking).

CULTURAL RESOURCE MANAGEMENT PLAN A site-specific activity plan regarding management of cultural resources, or a plan for managing a particular class of cultural resource.

DAILY ACTIVITY LEVEL (NFDRS) In fire danger rating, a subjective estimate of the degree of activity of a potential human-caused fire source relative to that which is normally experienced. Five activity levels are defined: none, low, normal, high, and extreme.

DEAD FUELS Fuels with no living tissue in which moisture content is governed almost entirely by atmospheric moisture (relative humidity and precipitation), dry-bulb temperature, and solar radiation.

DESIRED FUTURE CONDITION A future land or resource condition that achieves a set of compatible multi-resource goals and objectives.

DESIRED PLANT COMMUNITY The plant community which provides the vegetation attributes required for meeting or exceeding RMP vegetation objectives. The desired plant community must be within an ecological site's capability to produce these attributes through natural succession, management action, or both (BLM Wyoming Instruction Memorandum 91-280, 5/29/91).

DISRUPTING ACTIVITIES Disruptive pertains primarily to human presence and related activities that may cause displacement of or excessive stress to wildlife during critical life cycle periods.

DISTURBANCE FACTOR FOR WILDLIFE Defined as human activities, including traffic and motorized activities often associated with surface disturbance activities that affect wildlife species, particularly in crucial ranges.

DROUGHT A period of relatively long duration with substantially below-normal precipitation, usually occurring over a large area.

ECOLOGICAL CONDITION This term is misused in the RMP. See ECOLOGICAL STATUS.

ECOLOGICAL STATUS Defined in the Bureau's monitoring manuals as "the present state of vegetation of a range site in relation to the potential natural community for the site. Ecological status is use independent. It is an expression of the relative degree to which the kinds, proportions, and amounts of plants in a plant community resemble that of the potential natural community. The four ecological status classes correspond to 0-25, 26-50, 51-75, or 77-100 percent similarity to the potential natural community and are called early seral, mid seral, late seral, and potential natural community, respectively (this replaces range condition)."

ENERGY RELEASE COMPONENT (ERC) The computed total heat released per unit area (BTU's per square foot) within the fire front at the head of a moving fire.

EOLIAN ICE-CELLS Perennial ice formed from snowfall and insulated from summer heat by a cover of windblown sands. This ice feeds small ponds within the dunes.

ERODIBILITY The tendency of a soil to erode as influenced by texture under specified salts, structure, or slope.

EXCEPTION A case-by-case exemption from a lease stipulation. The stipulation continues to apply to all other sites within the leasehold to which the restrictive criteria apply.

EXCLUSION AREA Areas where future rights-of-way may be granted only when mandated by law.

EXISTING ROADS AND VEHICLE ROUTES Defined as routes existing prior to the date of designation, constructed or created by the frequent passage of motor vehicles, and receive regular and continuous use. Additional vehicle routes may be authorized as need dictates.

EXTENSIVE RECREATION MANAGEMENT AREAS BLM administrative units where recreation management is only one of several management objectives and where limited commitment of resources is required to provide extensive and unstructured type of recreation activities. They may contain recreation sites. These areas consist of the remainder of land areas not included in Special Recreation Management Areas within a resource area.

EXTIRPATION Extermination.

FINE FUELS Fast-drying dead fuels, generally characterized by a comparatively high surface are-to-volume ratio, which are less than 1/4 inch in diameter and have a timelag of one hour or less. These fuels (grass, leaves, needles, etc.) ignite readily and are consumed rapidly by fire when dry.

FIRE BENEFITS Fire effects with positive monetary, social, or emotional value or that contribute, through changes in the resource base, to the attainment of organizational goals.

FIRE CLIMAX Plant community maintained by periodic fires.

FIRE DAMAGE Detrimental fire effects expressed in monetary or other units, including the unfavorable effects of fire-induced changes in the resource base on the attainment of organizational goals.

FIRE DANGER Sum of constant danger and variable danger factors affecting the inception, spread, and resistance to control, and subsequent fire damage, often expressed as an index.

FIRE DANGER RATING Fire management system that integrates the effects of selected fire danger factors into one or more qualitative or numerical indices of current fire protection needs.

FIRE EFFECTS Physical, biological, and ecological impacts of fire on the environment.

FIRE ENVIRONMENT Surrounding conditions, influences, and modifying forces of topography, fuel, and air mass that control fire behavior.

FIRE FUEL MODELS Four National Fire Danger Rating System fuel models (G, H, L, and T, respectively) (Deeming 1978) adequately describe the make-up and potential fire danger of the fuels involved in the planning area.

Fuel Model T fuels are characterized by the sagebrush-grass types of the Great Basin and the Intermountain West. The shrubs burn easily and are not dense enough to shade out grass and other herbaceous plants. The shrubs occupy at least one-third of the site or the A or L fuel models should be used. Fuel Model T might be used for immature scrub oak and desert shrub associations in the west, and the scrub oak-wire grass type in the southeast. This fuel model is found on 4,880,747 acres of the planning area.

Fuel Model L is meant to represent western grasslands vegetated by perennial grasses. The principal species are coarser and the loadings heavier than those in Model A fuels. Otherwise the situations are very similar; shrubs and trees occupy less than one-third of the area. The quantity of fuel in these areas is more stable from year to year. This fuel model may be substituted for Fuel Model T in the early summer and late fall due to the availability of fine fuels.

Fuel Model H is represented by the short-needled conifers (white pines, spruces, larches, and firs). In contrast to Model G fuels, Fuel Model H describes a healthy stand with sparse undergrowth and a thin layer of ground fuels. Fires in H fuels are typically slow spreading and dangerous only in scattered areas where the downed woody material is concentrated. This fuel model is found on 116,816 acres on the planning area. Juniper may also be represented in extreme fire danger situations.

Fuel Model G is used for dense conifer stands where there is a heavy accumulation of litter and downed woody material. Such stands are typically overmature and may also be suffering insect, disease, wind, or ice damage; natural events that create a very heavy buildup of dead material on the forest floor. The duff and litter are deep and much of the woody material is more than three inches in diameter. The undergrowth is variable, but shrubs are usually restricted to openings. Types meant to be represented by Fuel Model G are hemlock-sitka spruce, coast Douglas-fir, and windthrown or bug-killed stands of lodgepole pine and spruce. This fuel model is located in small isolated areas generally associated with wet, low fire danger areas. Only during drought conditions do these areas pose a threat.

FIRE LOAD Number and size of fires historically experienced on a specified unit over a specified period (usually one day) at a specified index of fire danger.

FIRE MANAGEMENT OBJECTIVE Planned, measurable result desired from fire protection and use based on land management goals and objectives.

FIRE MANAGEMENT PLAN Statement, for a specific area, of fire policy, objective, and prescribed action; may include maps, charts, tables, and statistical data.

FIRE PLANNING Systematic technological and administrative management process of designing organization, facilities, and procedure to protect wildland from fire.

FIRE SEASON Period(s) of the year during which fires are likely to occur, spread, and damage wildlife values sufficient to warrant organized fire suppression.

FIRE SUPPRESSION All work and activities associated with fire extinguishing operations, beginning with discovery and continuing until the fire is completely extinguished.

FIRE WEATHER Weather conditions which influence fire ignition, behavior, and suppression.

FLUVIATILE Produced by river action; belonging to a river.

FOREST FIRE Variously defined for legal purposes (e.g., the State of California Public Resources Code: an uncontrolled fire on lands covered wholly or in part by timber, brush, grass, grain, or other flammable vegetation). Types of fires are ground, surface and crown (cf. brush fire, grass fire, range fire, wildfire).

FOREST RESOURCE MANAGEMENT CATEGORIES

1. *Lands available for intensive management of forest products.* Areas where forest management is the primary use and where other resource uses or values occur but are not emphasized.

2. *Lands available for restricted management of forest products.* Areas where multiple use or other resource values are emphasized but timber harvest occur.

3. *Lands where the forest management is for the enhancement of other uses.* Areas where forest management activities are specifically for the benefit of other identified resource uses or values.

4. *Forest lands not available for management of forest products.* Areas where no forest management is planned.

FUEL LOADING Ovendry weight of fuel per unit area (usually expressed in tons/acre). Loading may be referenced by fuel size or timelag categories.

FUEL MODEL Act or practice of controlling flammability and reducing resistance to control of wildland fuels through mechanical, chemical, biological, or manual means, or by fire, in support of land management objectives.

FUEL TREATMENT Any manipulation or removal of fuels to reduce the likelihood of ignition and/or to lessen potential damage and resistance to control (e.g., lopping, chipping, crushing, piling, and burning).

FULL-TIME EQUIVALENT (FTE) A measurement of employment that is not equal to jobs or persons; rather, it is based on hours worked (e.g., one person full time or 2 people half time both equal 1 FTE).

FUNCTIONAL - AT RISK Riparian-wetland areas that are in functional condition but an existing soil, water, or vegetation attribute makes them susceptible to degradation (Prichard, et al. 1993).

GEOGRAPHIC MANAGEMENT UNIT A geographic area where activities are managed to ensure the combination of resource values in this area are adequately maintained.

GREEN RIVER AIRSHED Defined as the air over the Green River Basin. Its contents are moved by prevailing winds. Some particulates in this airshed have been documented to be from as far away as the Mexican border.

GROWING SEASON In temperate climates, that portion of the year when temperature and moisture are usually most favorable for plant growth.

GUZZLER A water development for wildlife.

HAZARDOUS MATERIAL A comprehensive term that has been adopted by BLM to include a wide range of hazardous/toxic substances and hazardous wastes that require special management.

HAZARDOUS WASTE A waste that can: a) cause injury or death or b) damage or pollute the environment. Excluded from being hazardous wastes (by CERCLA, 40 CFR 261.3, 49 CFR 171.8, 49 CFR 172.101, 29 CFR 1910.120(a)(3)) are:

a) household wastes

b) solid wastes generated by agriculture which are returned to the soil as fertilizers

c) mining overburden returned to the mine site.

d) fly ash, bottom ash waste, slag waste, and flue gas emission control waste.

e) drilling fluids, produced waters, and other wastes associated with exploration, development, or production of crude oil, natural gas, or geothermal energy.

f) solid waste from the extraction, beneficiation, and processing of ores and minerals (including coal, phosphate rock, and overburden from uranium mining.

g) petroleum-contaminated media and debris from underground storage tanks that are subject to corrective action under 40 CFR 280.

h) injected groundwater in free phase hydrocarbon recovery projects, and

i) otherwise hazardous wastes that have not yet exited their product or storage tank, vehicle or vessel, or manufacturing process unit.

HEALTHY AND PRODUCTIVE CONDITION. See PROPER FUNCTIONING CONDITION.

HIGH VALUE WILDLIFE HABITATS. Those areas which support greater biodiversity, unique or special status plant or animal species, or greater abundance of a species. Examples of these habitats are: riparian or wetland areas, heavily occupied canyons or cliffs, or crucial big game winter or parturition areas.

HISTORIC LANDSCAPE. A geographic area, including both historic and natural features, associated with an event, person, activity, or design style that is significant in American history.

HUMAN-CAUSED FIRE. Any fire caused directly or indirectly by person(s).

HUMAN-PRESENCE DISTURBANCE (OR DISRUPTIVE) ACTIVITIES. Used in the context of the physical presence, sounds, and movements of humans and their activities (on, below, or above the land surface), whether on foot, or beast of burden, or using mechanized or motorized vehicles or equipment.

HUNTER-DAY. The presence of one person in an area for the purpose of engaging in a hunting activity during all or part of a calendar day.

HYDRIC SOIL. A soil that is saturated, flooded, or ponded long enough during the growing season to develop anaerobic conditions in the upper part.

HYDROPHOPIC SOILS. Water-repellant soils.

HYDROPHYTE. Any plant that grows in water or on a substrate that is at least periodically deficient in oxygen as a result of excessive water content; plants typically found in wetlands and other aquatic habitats.

HYDROPHYTIC VEGETATION. Plant life growing in water or on a substrate that is at least periodically deficient in oxygen as a result of excessive water content.

INCENDIARY FIRE. Wildfire willfully ignited by anyone to burn, or spread to, vegetation or property not owned or controlled by that person and without consent of the owner or his/her agent.

INTERMITTENT STREAM. A stream or part of a stream that flows only in direct response to precipitation. It receives little or no water from springs and is dry for most of the year.

KEETCH-BYRAM DROUGHT INDEX. Commonly-used drought index developed specifically for fire management applications, with a numerical range from 0 (no moisture deficiency) to 800 (maximum drought).

LACUSTRINE. Produced by or formed in a lake or lakes.

LEASABLE MINERALS. Minerals subject to lease by the Federal Government, include oil and gas, coal, phosphate, sodium, potash, and oil shale, as well as geothermal resources.

LEASE NOTICE. These notices (not to be confused with Notices to Lessees) are attached to leases and provide detailed information concerning limitations that already exist in law, lease terms, regulations, or operational orders. A Lease Notice also addresses special items the lessee should consider when planning operations, but does not impose new or additional restrictions.

LIFE OF MINE. Time period it takes to exhaust the recoverable coal reserves within a mine or permit area.

LIGHTNING FIRE. Wildfire caused directly or indirectly by lightning.

LITHIC SCATTER SITE. A class of cultural resource that consists of an array of chipped stone artifacts without other kinds of artifacts or features.

LOCATABLE MINERALS. Minerals subject to disposal and development through the Mining Law of 1872 (as amended). Generally includes metallic minerals such as gold and silver and other materials not subject to lease or sale.

MECHANIZED VEHICLES. Mechanical transport designed to replace human labor and/or human physical capabilities. Mechanized vehicles include mountain bikes, horse drawn wagons, big game carriers, hand carts, and hang gliders.

METAPOPULATION. A system of local populations linked by dispersal.

MODERATE STANDS. Timber stands five to 100 acres in size.

MODIFICATION. A fundamental change in the provisions of a lease stipulation, either temporarily or for the term of the lease. A modification may include an exemption from or alteration to a stipulated requirement. The modification may or may not apply to all other sites within the leasehold to which the restrictive criteria apply.

MOST EFFICIENT LEVEL. The level of protection in which the cost of suppression is commensurate with or less than the resource values managed for.

MULTIPLE USE. In Section 103 of FLPMA, "... management of the public lands and their various resource values so that they are utilized in the combination that will best meet the present and future needs of the American people, making the most judicious use of the land for some or all of these resources or related services over areas large enough to provide sufficient latitude for periodic adjustments in use to conform to changing needs and conditions, the use of some land for less than all the resources, a combination of balanced and diverse resource uses that takes into account the long-term needs of future generations for renewable and nonrenewable resources, including but not limited to recreation, range, timber, minerals, watershed, wildlife and fish, and natural scenic, scientific, and historical values, and harmonious and coordinated management of the various resources without permanent impairment of the productivity of the land and the quality of the environment with relative consideration being given to the relative values of the resources and not necessarily to the combination of uses that will give the greatest return or the greatest unit output."

GLOSSARY

NATIONAL REGISTER OF HISTORIC PLACES. A list of districts, sites, buildings, structures, and objects significant in American history, architecture, archaeology, and culture.

NATURAL FIRE. Any fire of natural origin (e.g., lightning, spontaneous combustion, volcanic activity) which is allowed to burn because it is accomplishing one or more resource management objectives.

NATURAL FUELS. Fuels resulting from natural processes and not directly generated or altered by land management practices.

NATURAL GEOLOGIC EROSION. The wearing away of the land (soil) surface by running water, waves, moving ice and wind, or by such processes as mass wasting and corrosion (solution and other chemical processes) versus induced erosion.

NATURALNESS. In Section 2(c) of the Wilderness Act, the wilderness characteristic in which an area "generally appears to have been affected primarily by the forces of nature, with the imprint of man's work substantially unnoticeable."

NECESSARY TASKS. Work requiring the use of motor vehicles. Examples include using motor vehicles to: pick up big game kills, repair range improvements, manage livestock, perform geophysical exploration activities and other types of leasable mineral exploration activity (other than casual use), perform mining claim functions resulting in less than 5 acres of surface disturbance as described in 43 CFR 3809, etc.

NONCONSUMPTIVE RECREATION. Wildlife-associated recreation which is not fishing, hunting, or trapping. Nonharvesting activities, such as feeding, photographing, and observing fish and other wildlife, picnicking, camping, etc., are nonconsumptive wildlife activities.

NONFUNCTIONAL. Riparian-wetland areas that clearly are not providing adequate vegetation, landform, or large woody debris to dissipate stream energy associated with high flows and thus are not reducing erosion, improving water quality, etc., as listed in PROPER FUNCTIONING CONDITION. The absence of certain physical attributes such as a floodplain where one should be are indicators of nonfunctioning conditions. (Prichard, et al. 1993)

NONIMPAIRMENT CRITERIA. The criteria by which temporary impacts in a WSA can be rehabilitated to be substantially unnoticeable; the damaged environmental systems are capable of being rehabilitated to essentially the condition which existed on the date the activity was approved by BLM, and rehabilitation can be accomplished practically by the time of Congressional designation of the area as wilderness or, in the case of new mineral activities, within five years of designation.

NONMOTORIZED MECHANICAL TRANSPORT. Any contrivance for moving people or material in or over land, water, snow, or air, that has moving parts, and that is powered by a living or nonliving power source. This includes, but is not limited to, sailboats, hang gliders, parachutes, bicycles, game carriers, carts, and wagons. The term does not include wheelchairs when used as necessary medical appliances, nor does it include skis, snowshoes, nonmotorized river craft, sleds, travois, or similar primitive devices without moving parts.

NO SURFACE OCCUPANCY (NSO). No surface disturbing activities or surface disturbance of any nature or for any purpose will be allowed in the area of concern.

NOTICE TO LESSEES (NTLs). An NTL is a written order issued by the authorized officer to implement regulations and operating orders. It serves as instructions on specific item(s) of importance within a State, District, or Area.

OCCUPIED HABITAT. Habitat which has a species present at some time of the year. This can include yearlong habitat, lambing areas, winter ranges, and movement corridors.

OFF-ROAD VEHICLE. Any motorized vehicle capable of, or designated for, travel on or immediately over land, water, or other natural terrain, excluding: (1) any nonamphibious registered motorboat; (2) any military, fire, emergency, or law enforcement vehicle while being used for emergency purposes; (3) any vehicle whose use is expressly authorized by the authorized officer, or otherwise officially approved; (4) vehicles in official use; and (5) any combat or combat support vehicle when used in times of national defense emergencies (43 CFR 8340.0-5(a)).

OFF-ROAD VEHICLE MANAGEMENT DESIGNATIONS. Designations apply to all off-road vehicles regardless of the purposes for which they are being used. Emergency vehicles are excluded. The ORV designation definitions have been developed in cooperation with representatives of the U.S. Forest Service, U.S. Park Service, and BLM State and District personnel. BLM recognizes the differences between off-road vehicles and oversnow vehicles in terms of use and impact. Therefore, travel by oversnow vehicles will be permitted off existing routes and in all open or limited areas (unless otherwise specifically limited or closed to oversnow vehicles) if they are operated in a responsible manner without damaging the vegetation or harming wildlife.

Closed. Vehicle travel is prohibited in the area. Access by means other than motorized vehicle is permitted.

Open. Vehicle travel is permitted in the area (both on and off roads) if the vehicle is operated responsibly in a manner not causing, or unlikely to cause significant, undue damage to or disturbance of the soil, wildlife, wildlife habitat, improvements, cultural, or vegetative resources or other authorized uses of the public lands.

Limited. a. Vehicle travel is permitted only on existing roads and vehicle routes which were in existence prior to the date of designation in the *Federal Register*. Vehicle travel off of existing vehicle routes is permitted only to accomplish necessary tasks and only if such travel does not result in resource damage. Random travel from existing vehicle routes is not allowed. Creation of new routes or extensions and/or widening of existing routes is not allowed without prior written agency approval.

b. Vehicle travel is permitted only on roads and vehicle routes designated by BLM. In areas where final designation has not been completed, vehicle travel is limited to existing roads and vehicle routes as described above. Designations are posted as follows:

1. Vehicle route is open to vehicular travel.
2. Vehicle route is closed to vehicular travel.

c. Vehicle travel is limited by number or type of vehicle. Designations are posted as follows:

1. Vehicle route limited to four-wheel drive vehicles only.
2. Vehicle route limited to motorbikes only.
3. Area is closed to oversnow vehicles.

d. Vehicle travel is limited to licensed or permitted use.

e. Vehicle travel is limited to time or season of use. Posted:

Seasonal closure to all motor vehicles (the approximate dates of closure are indicated).

f. Where specialized restrictions are necessary to meet resource management objectives, other limitations may also be developed. Posted:

Recreational ORV play areas.

OVERMATURE. A description of a timber type (or stand) that is past the age of maturity as defined by the culmination of mean annual increment and exhibit characteristics of decadence which may include (but are not limited to) low growth rates, dead and dying trees, snags, and an accumulation of down woody materials.

PERENNIAL STREAM. A stream or reach of a stream which flows continuously throughout the year, and whose upper surface generally stands lower than the water table in the region adjoining the stream. A permanent or live stream.

PLAYA. The usually dry, nearly level, lake plain that occupies the lowest parts of closed depressions, such as those on intermontane basin floors. Temporary flooding occurs in response to precipitation runoff, forming broad, shallow sheets of water which quickly gather and almost as quickly evaporate.

POLETIMBER. A class of live trees that measure 5.0 to 8.9 inches diameter breast height (dbh).

POTENTIAL HABITAT. An area which displays similar environmental characteristics (such as elevation, soil type, precipitation, associated species, slope and aspect) as the known habitat of the subject species.

PRECIPITATION. Any or all forms of water particles, liquid or solid, that fall from the atmosphere and reach the ground.

PRESCRIBED BURNING. Controlled application of fire to wildland fuels in either their natural or modified state, under specified environmental conditions which allow the fire to be confined to a predetermined area and at the same time to produce the fireline intensity and rate of spread required to attain planned resource management objectives.

PRESCRIBED FIRE. A fire burning within prescription, resulting from planned or unplanned ignition.

PRESCRIPTION. Written statement defining objectives to be attained as well as temperature, humidity, wind direction and wind speed, fuel moisture content, and soil moisture under which the fire will be allowed to burn, generally expressed as acceptable ranges of the various indices, and the limit of the geographic area to be covered.

PROPER FUNCTIONING CONDITION. Riparian-wetland areas are functioning properly when adequate vegetation, landform, or large woody debris is present to dissipate stream energy associated with high waterflows, thereby reducing erosion and improving water quality; filter sediment, capture bedload, and aid floodplain development; improve flood-water retention and ground-water recharge; develop root masses that stabilize streambanks against cutting action; develop diverse ponding and channel characteristics to provide the habitat and the water depth, duration, and temperature necessary for fish production, waterfowl breeding, and other uses; and support greater biodiversity. The functioning condition of riparian-wetland areas is a result of interaction among geology, soil, water, and vegetation (Prichard et al. 1993, and BLM Manual 1737-9). See also FUNCTIONAL AT RISK, NONFUNCTIONAL.

PUBLIC LAND. Land administered by the Bureau of Land Management.

RAPTOR. A bird of prey, such as an eagle, hawk, or owl.

RARE SPECIES. Wildlife species whose populations are consistently small and widely dispersed, or whose ranges are restricted to a few localities, such that any appreciable reduction in numbers, habitat availability, or habitat condition might lead toward extinction.

RECLAMATION. The reconstruction of disturbed ecosystems by returning the land to a condition approximate or equal to that which existed prior to disturbance, or to a stable and productive condition compatible with the land use plan. The immediate goal of reclamation is to stabilize disturbed areas and protect both disturbed and adjacent undisturbed areas from unnecessary degradation.

RECREATION USER DAY. Any recreational activity taking place within a 24-hour period, or portion thereof, for each individual recreating on public lands.

RESOURCE DAMAGE. Defined as leaving long-term signs of scenic/vehicle use (ruts) or causing erosion or water pollution, creating undue degradation of other vegetative or wildlife resources.

RESTRICTED AREAS. Areas where mitigation such as seasonal restrictions is required to protect resource values.

RIPARIAN. An area of land directly influenced by permanent water. It has visible vegetation or physical characteristics reflective of permanent water influence. Lakeshores and streambanks are typical riparian areas. Excluded are such sites as ephemeral streams or washes that do not have vegetation dependent on free water in the soil.

RIPARIAN HABITAT. A highly valued wetland vegetation community found along or around streams, lakes, ponds, and other open water (both perennial and intermittent). This unique habitat is crucial to the continued existence of many fish and wildlife species known to occur in the area. Riparian vegetation helps maintain high water tables, stabilize pond and streambanks, create quality fish and wildlife habitat, prevent or reduce flooding, and maintain or improve water quality.

SALINITY. The concentration of dissolved salts in water. It is used to indicate the existence of saline soils. The electrical conductivity (EC) of a saturated extract is the standard measure of salinity and is expressed as mmhos/cm. Classes of salinity and their electrical conductivity level: nonsaline - less than 2; very slightly saline - 2-4; slightly saline - 4-8; moderately saline - 8-16; strongly saline - greater than 16.

SAPLING. A tree that is greater than three feet in height and less than four inches in diameter.

SAWTIMBER. A class of live trees that measure 9 inches diameter breast height (dbh) and larger.

SECTION 106 CONSULTATION. Also known as the 36 CFR 800 process. Discussions between a federal agency official and the Advisory Council on Historic Preservation, State Historic Preservation Officer, and other interested parties concerning historic properties that could be effected by a specific undertaking. Section 106 is the portion of the National Historic Preservation Act that outlines the procedure. The procedure is codified in 36 CFR 800.

SEEDSAPS. Stand of trees composed of seedlings and/or saplings.

SEEDLINGS. A tree grown from seed that has not reached a height of three feet nor a diameter of two inches.

GLOSSARY

SEVERE WINTER RELIEF. A documented survival range which may or may not be considered a CRUCIAL RANGE. It is used to a great extent, only in occasionally extremely severe winters (e.g., 2 years out of 10). It may lack habitat characteristics which would make it attractive or capable of supporting major portions of the population during normal years but is used by and allows at least a significant portion of the population to survive the occasional extremely severe winter.

SMOKE MANAGEMENT. Application of knowledge of fire behavior and meteorological processes to minimize degradation of air quality during prescribed fires.

SOIL DEGRADATION. Any loss of natural function of the soil. This may include but is not limited to erosion, loss of structure, loss of productivity, and changes that result in undesired increases in soluble salts.

SOLID WASTE. A solid waste is any solid, liquid, or contained gaseous material that is no longer used and is either disposed of, incinerated, recycled, or stored until needed again. Excluded from this definition of solid wastes (by 40 CFR 261.2) are: (a) domestic sewage, (b) industrial wastewater discharges from point sources, (c) irrigation return flow, and (d) in situ mining materials.

SPECIAL EMPHASIS AREAS. An area containing one or a combination of unique resources or values that receive more intensive management (e.g., ACEC's, Special Recreation Management Areas, Wild & Scenic Rivers, etc.).

SPECIAL FEATURES. Values present in an area under consideration for wilderness, such as ecological, geological, or other features of scientific, educational, scenic, or historical value. They are not required for wilderness designation, but their presence enhances an area's wilderness quality.

SPECIAL RECREATION MANAGEMENT AREA. BLM administrative units established to direct recreation program priorities, including the allocation of funding and personnel, to those public lands where a commitment has been made to provide specific recreation activity and experience opportunities on a sustained yield basis. This includes a long-term commitment to manage the physical, social, and managerial settings to sustain these activity and experience opportunities. Delineation is based on administrative/management criteria including the existence of Congressional designations, similar or interdependent recreation values, homogeneous or interrelated recreation uses, land tenure and use patterns, transportation systems, administrative efficiency, intensity of use, high resource values, public concerns, or interagency considerations. These areas usually require a high level of recreation investment and/or management. They include recreation sites, but recreation sites alone do not constitute a special recreation management area.

SPECIAL STATUS PLANTS. Special Status Plant species are those which are proposed for listing, officially listed (T&E), or candidates for listing as threatened or endangered by the Secretary of the Interior under the provisions of the Endangered Species Act; those listed or proposed for listing by a state in a category implying potential endangerment or extinction; and those designated by each State Director as sensitive.

STABILIZED DUNE. A sand dune protected from wind action by a cover of vegetation.

STIPULATION. A restriction placed on an oil and gas lease or other use authorization to protect other resources (e.g., a seasonal restriction to protect big game in their winter range or in their calving areas). The restriction precludes or restricts activities.

SUPPRESS A FIRE. Extinguish a fire or contain it within specified boundaries.

SURFACE DISTURBANCE. Refers to any action created through mechanized or mechanical means that would cause soil mixing or result in alteration or removal of soil or vegetation and expose the mineral soil to erosive processes. Used in the literal context of actual physical disturbance and movement or removal of the land surface and vegetation. See "Disturbance Factor for Wildlife."

THREATENED AND ENDANGERED SPECIES. As defined by the Endangered Species Act of 1973 as amended (P.L. 93-205, 87 Stat. 884), an endangered species means "any species which is in danger of extinction throughout all or a significant portion of its range" and a threatened species means "any species which is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range." Whether a species is threatened or endangered is determined by the following factors: (1) present or threatened destruction, modification, or curtailment of its habitat or range; (2) overutilization for commercial, sporting, scientific, or educational purposes; (3) disease or predation; (4) inadequacy of existing regulatory mechanisms; or (5) other natural or manmade factors.

THRIVING NATURAL ECOLOGICAL BALANCE. The condition of the public range that exists when resource objectives related to wild horses in approved land use and/or activity plans have been achieved.

THRUST BELT. An intensely faulted belt of mountain ranges. Thrust faults are low angle ruptures in the earth's crust that relieved deep compressional forces. The surface expression of this tectonic activity is westward dipping formations exposed in ridges or mountain ranges. Each ridge moved horizontally and vertically to its position along at least one thrust fault.

TOPOGRAPHIC RELIEF. The positions and elevations of the natural or manmade features of an area that describe the configuration of its surface.

TRONA. A naturally occurring sodium sesquicarbonate that was formed in ancient saline lakes. It is generally honey or light brown in color, depending upon the impurities present. It is the major natural source of soda ash.

TUNNEL EFFECT. A visual resource management term used when a management activity has changed or altered the basic elements of the landscape (form, line, color, texture). A casual observer will notice a disrupting path through the landscape.

UNCONTROLLED FIRE. Any fire which threatens to destroy life, property, or natural resources, and (a) is not burning within the confines of firebreaks, or (b) is burning with such intensity that it could not be readily extinguished with ordinary tools commonly available.

UNDERTAKING. Any project, activity, or program that can result in changes in the character or use of historic properties, if any such historic properties are located in the area of potential effects. The project, activity, or program must be under the direct or indirect jurisdiction of a Federal agency or licensed or assisted by a Federal agency. Undertakings include new and continuing projects, activities, or programs and any of their elements not previously considered under Section 106.

UNIFORM FUELS. Fuels distributed continuously, thereby providing a continuous path for fire to spread.

GLOSSARY

UNNECESSARY OR UNDUE DEGRADATION. Impacts or disturbances greater than those which would normally result when the same or similar activity is being accomplished by a prudent person using the best reasonably available technology in a usual, customary, and proficient manner that takes into consideration the effects of the activity on other resources and land uses, including those resources and uses outside the area of activity. Unnecessary and undue degradation may involve failure to initiate and complete reasonable mitigation measures, including reclamation of disturbed areas, creation of a nuisance, or failure to comply with applicable environmental protection statutes and regulations.

UNOCCUPIED HISTORICAL HABITAT. Habitat which is known to have been previously occupied by a species but has no animals at the present time.

UNOCCUPIED SUITABLE HABITAT. Habitat where a species is not found at the present time, has not been recorded as historical habitat, but which apparently contains suitable physical and biological characteristics necessary for that particular species.

VALUES AT RISK. Any or all natural resources, improvements, or other values which may be jeopardized if a fire occurs.

VEGETATION MANIPULATION. Land treatment projects designed to improve the growth of more desirable plant species. Biological, chemical, or mechanical methods of vegetation removal, including prescribed burns, are used.

VISUAL RESOURCE MANAGEMENT CLASSES (definition of).

Class I. The objective of this class is to maintain a landscape setting that appears unaltered by humans. It is applied to wilderness areas, some natural areas, wild portions of the wild scenic rivers, and other similar situations where management activities are to be restricted.

Class II. The objective of this class is to design proposed alterations so as to retain the existing character of the landscape. The level of change to the characteristic landscape should be low. Management activities may be seen, but should not attract attention of the casual observer. Any changes must repeat the basic elements of form, line, color, and texture found in the predominant natural features of the characteristic landscape.

Class III. The objective of this class is to design proposed alterations so as to partially retain the existing character of the landscape. Contrasts to the basic elements (form, line, color, and texture) caused by a management activity may be evident and begin to attract attention in the characteristic landscape. However, the changes should remain subordinate to the existing characteristic landscape. Structures located in the foreground distance zone (0-1/2 mile) often create a contrast that exceeds the VRM class, even when designed to harmonize and blend with the characteristic landscape. This may be especially true when a distinctive architectural motif or style is designed. Approval by the District Manager is required on a case-by-case basis to determine whether the structure(s) meet the acceptable VRM class standards, and if not, whether they add acceptable visual variety to the landscape.

Class IV. The objective of this class is to provide for management activities which require major modification of the existing character of the landscape. Contrasts may attract attention and be a dominant feature of the landscape in terms of scale; however, the change should repeat the basic elements (form, line, color, and texture) inherent in the characteristic landscape. Structures located in the foreground distance zone (0-1/2 mile) often create a contrast that exceeds the VRM class, even when designed to harmonize and blend with the characteristic landscape. This may be especially true when a distinctive architectural motif or style is designed. Approval by the District Manager is required on a case-by-case basis to determine whether the structure(s) meet the acceptable VRM class standards, and if not, whether they add acceptable visual variety to the landscape.

Rehabilitation Area. Change is needed or change may add acceptable visual variety to an area. This class applies to areas where the naturalistic character has been disturbed to a point where rehabilitation is needed to bring it back into character with the surrounding landscape. This class would apply to areas identified in the scenic evaluation where the quality class has been reduced because of unacceptable cultural modification. The contrast is inharmonious with the characteristic landscape. It may also be applied to areas that have the potential for enhancement; i.e., add acceptable visual variety to an area or site. It should be considered an interim or short-term classification until one of the other VRM class objectives can be reached through rehabilitation or enhancement. The desired visual resource management class should be identified.

WAIVER. A permanent exemption from a lease stipulation for the entire leasehold.

WETLAND. Lands where at least periodic inundation or saturation with water (either from the surface or subsurface) is the dominant factor determining the nature of soil development and the types of plant and animal communities living there. These include the entire zones associated with streams, lakes, ponds, springs, canals, seeps, wet meadows, and some aspen stands. Wetlands support all fish. They also support more species of wildlife (in higher densities) than any other habitat type in the planning area. They comprise less than one percent of the public land acreage.

Wetlands are lands transitional between terrestrial and aquatic systems where the water table is usually at or near the surface or the land is covered by shallow water. For purposes of this document, wetlands must have one or more of the following three attributes: (1) at least periodically, the land supports predominantly hydrophytes, (2) the substrate is predominantly undrained hydric soil, and (3) the substrate is non-soil and is saturated with water or covered by shallow water at some time during the growing season of each year.

WILDFIRE. Any fire occurring on wildland that neither meets management objectives nor occurs within a prescribed fire area, thus requiring a suppression response.

WINDOWS. Short segments of right-of-way corridor utilized when designating a full length right-of-way corridor is not feasible.

WITHDRAWAL. Removal or withholding of public lands, by statute or Secretarial order, from operation of some or all of the public land laws. A mineral withdrawal includes public lands potentially valuable for leasable minerals, precluding the disposal of the lands except with a mineral reservation clause unless the lands are found not to contain a valuable deposit of minerals. A mineral withdrawal is the closing of an area to mineral location and development activities.

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TABLE 1
LAND AND MINERAL OWNERSHIPS AND ADMINISTRATIVE JURISDICTIONS WITHIN THE GREEN RIVER RMP PLANNING AREA

Areas the Green River RMP Decisions WILL Cover:	Approximate Acres[1]
A. Areas where the land surface and mineral estate are both Federally owned and are both administered by the BLM[2]	3,500,000
B. Areas where the land surface is Federally owned and administered by the BLM and the mineral estate is owned and administered by private individuals, the state of Wyoming, or local governments[3]	135,000
C. Areas where the land surface is owned and administered by private individuals, the state of Wyoming, or local governments and the mineral estate is Federally owned and administered by the BLM[4]	81,000
Total BLM administered federal land surface to be covered by RMP decisions	**3,635,000**
Total BLM administered federal mineral estate to recovered by RMP decisions	**3,581,000**
Areas the Green River RMP Decisions Will NOT Cover:	
D. Areas where the Federal land surface is administered by the Forest Service and the Federal mineral estate administered by the BLM[5]	85,000
E. Areas where the Federal land surface is administered by the Bureau of Reclamation and the Federal mineral estate is administered by the BLM[5]	175,000
F. Areas where the Federal land surface is administered by the U. S. Fish and Wildlife Service and the Federal mineral estate is administered by the BLM[5]	7,800
Total BLM administered federal mineral estate that will NOT be covered by RMP decisions	**267,800**
G. Areas where the land surface and minerals are both owned by private individuals, the state of Wyoming, or local governments and the BLM has no administrative authority[6]	1,370,000
Total land surface acres in the Green River RMP planning area (all ownerships)[1]	5,359,000

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[1] Because of land surface and mineral ownership overlaps and administrative responsibility overlaps, acreage figures are not additive.

For the purpose of the Green River RMP planning effort, areas where one or more of the mineral resource categories are Federally owned, are defined and addressed as if all minerals in the area were Federally owned. Where mixed minerals ownership occurs (for example, privately owned oil and gas overlapping with Federally owned coal in the same area), minerals planning and management decisions in the RMP will only pertain to the Federally owned minerals.

[2] In areas where the Federal land surface and Federal mineral estate are both administered by the BLM, the RMP will include planning and management decisions for both the land surface and the mineral estate.

[3] In areas where the Federal land surface is administered by the BLM, and the minerals are privately owned or owned by the State of Wyoming or local governments, the RMP will include planning and management decisions for only the BLM administered Federal land surface. While these surface management decisions may have some affect on the ability to manage and develop the non-Federally owned minerals, the RMP planning and management decisions will not pertain to the non-Federal mineral estate. At the same time, surface and minerals management actions and development activities anticipated in these areas will be taken into account for purposes of cumulative impact analysis in the Green River RMP EIS.

[4] In areas where the land surface is privately owned or owned by the State of Wyoming or local governments, and the minerals are Federally owned, the RMP will include planning and management decisions for only the BLM administered Federal mineral estate. While the land and resource uses and values on the non-Federal surface will be taken into account and will affect development of the Federal mineral planning and management decisions, these decisions will not pertain to the state and privately owned land surface. At the same time, surface and minerals management actions and development activities anticipated in these areas will be taken into account for purposes of cumulative impact analysis in the Green River RMP EIS.

[5] In areas where the Federal land surface is administered by the Forest Service, the Bureau of Reclamation or the Fish and Wildlife Service, and the Federal mineral estate is administered by the BLM, the land surface planning and management decisions are the responsibility of these "other" Federal surface management agencies. Any BLM administrative responsibilities within these areas (for example, actions concerning the Federal mineral estate) are handled case by case and are guided by the other surface management agencies' policies, procedures, and plans. Thus, the Green River RMP will not include planning and management decisions for the Federal minerals in these areas. At the same time, surface and minerals management actions and development activities anticipated in these areas will be taken into account for purposes of cumulative impact analysis in the Green River RMP EIS.

It is also important to note that, while other BLM responsibilities include surface management of certain Federal lands withdrawn for purposes of the Bureau of Reclamation (BOR), they are carried out in accordance with an interagency agreement between the two agencies. Administrative jurisdiction (including land use planning) for these lands lies with the BOR.

[6] The Green River RMP will not include any planning and management decisions for areas where the land surface and minerals are both privately owned or owned by the State of Wyoming or local governments.

TABLE 2
RIGHTS-OF-WAY AVOIDANCE AND EXCLUSION AREAS

ROW Avoidance Areas	Approximate Acres[1]
Boars Tusk	90
Cedar Canyon Petroglyphs (Vista)[2]	360
Crookston Ranch	40
Dry Sandy Swales (1/4 mile buffer)	125
Emmons Cone	60
14-Mile Recreation Area	20
Greater Red Creek ACEC - Sage Creek Drainage	52,270
Greater Sand Dunes ACEC (& lands within 1 mile or visual horizon)	70,850
Historic Trails (1/4 mile buffer)	64,910
Horse Herd Viewing Area (1/2 mile buffer)	500
I-80 Point of Rocks to Green River (limited to local service lines)	—
LaBarge Bluffs Petroglyphs (Vista)[2]	100
Monument Valley (erosive soil areas and slopes >25%)	—
North and South Table Mountains	1,280
Oregon Buttes ACEC	3,450
Pilot Butte	170
Pine Mountain	64,200
Pine Springs ACEC	6,030
Sage Grouse Leks (1/4 mile buffer)	8,170
South Pass Historic Landscape ACEC (within landscape not in vista)	20,080
Special Status Plants (actual sites)	3,610
Special Status Plants (potential sites)	39,870
Steamboat Mountain ACEC	43,270
Sugarloaf Basin	85,800
Sugarloaf Petroglyphs (Vista)[2]	150
Tolar Petroglyphs (Vista)[2]	310
White Mountain Petroglyphs (Vista)[2]	480
Wind River Front[3] (Eastern Portion)	98,510
ROW Exclusion Areas	
Big Sandy River (1/2 mile wide corridor, 1.5 mile long)	480
Cedar Canyon Petroglyphs[2]	20
Dry Sandy Swales	20
Dug Springs Stage Station	10
Greater Red Creek ACEC - Currant Creek Drainage (from headwaters west to Currant Creek Ranch)	23,740
Greater Red Creek ACEC - original Red Creek ACEC[4]	55,800
LaBarge Bluffs Petroglyphs[2]	20
LaClede Stage Station	10
Native American Burial Sites	2
Natural Corrals ACEC	1,276
Pine Butte	320
Prehistoric Quarry Site	160
South Pass Historic Landscape ACEC (vista within landscape)	33,700
Special Status Plant ACECs	900
Steamboat Mountain ACEC (Communication sites)	—
Sugarloaf Petroglyphs[2]	20

TABLE 2 (continued)
RIGHTS-OF-WAY AVOIDANCE AND EXCLUSION AREAS

ROW Exclusion Areas (continued)	Approximate Acres[1]
Sweetwater River Wild, Scenic, and Recreational Segments (1/2 mile corridor, 9.7 miles long)	3,110
Tolar Petroglyphs[2]	20
Tri-Territory Marker	10
White Mountain Petroglyphs[2]	20
Wind River Front[3] (Eastern Portion)	88,510

[1] Where applicable.

[2] Petroglyphs and vistas total 1,000 acres.

[3] Major facilities in the Wind River Front (Eastern Portion) will be excluded. Long linear facilities will be avoided.

[4] Greater Red Creek (Red Creek ACEC portion). The existing right-of-way concentration area would be an avoidance area for rights-of-way with no new development authorized from the escarpment south to Richards Gap (subject to review after 10 years). The remainder of the area would be an exclusion area (exception will be given to the needs of private landowners for access to private property).

TABLE 3
WITHDRAWALS REVOKED OR RETAINED

Revoked	Approximate Acres
Classification Withdrawal	1,080,600
Coal Withdrawal	375,828
Multiple Use Management Classification	200
Oil Shale Withdrawal	2,428,808
Phosphate Withdrawal	14,787
Public Water Reserves	21,368
Stock Driveways	37,111
Retained	
BLM Rock Springs Administrative Site	14
14-Mile Recreation Site	20
Natural Corrals Archeological Site	357
Oregon Trail/Parting of the Ways	520
Pine Springs Archeological Site	90
Public Water Reserves	4,240
Sugarloaf Petroglyphs	5
White Mountain Petroglyphs	20
Classification Withdrawal	-
Coal Withdrawal	-
Multiple Use Management Classification	-
Oil Shale Withdrawal	-
Phosphate Withdrawal	-
Public Water Reserves	-
Stock Driveways	-

Note: Approximately 500,000 acres of withdrawals overlap.

TABLE 4
WITHDRAWALS TO BE PURSUED

Site	Approximate Acres	Existing Withdrawal Overlap
4-J Basin[1]	—	
Cedar Canyon Petroglyph Site & ACEC	515	
Crookston Ranch	40	
Dug Springs Stage Station	10	Oil Shale
Flaming Gorge Reservoir (BOR)	63	Oil Shale/Coal
Greater Red Creek ACEC (Red Creek/Currant Creek Drainage)	79,620	Oil Shale/Coal
Greater Sand Dunes ACEC	25,250	
LaBarge Bluffs Petroglyph Site	20	
LaClede Stage Station	10	Oil Shale
Monument Valley Area[1]	0	Oil Shale/Coal
Pine Springs Expansion Area	2,000	Oil Shale/Coal
Prehistoric Quarry Site	160	
Public Water Reserve	9,386	
South Pass Historic Landscape[1]	5,260	Coal
Special Status Plant Species	3,610	Oil Shale/Coal
Steamboat Mountain Area[2] (tentative)	43,270	Coal
Sweetwater Recreation Site	80	
Sweetwater River Segment	3,970	
Tolar Petroglyph Site	20	
Tri-Territory Marker	10	Coal
Wind River Front (east)[2]	88,510	
TOTALS	**261,804**	

[1] Actual withdrawal acreage to be determined.

[2] Actual withdrawal acreage for these areas to be determined upon completion of site specific management plans.

TABLE 5
ESTIMATED ANNUAL ALLOWABLE CUT
(board feet)

Timber Unit	Allowable Cut 500,000
Wind River	250,000
Pine Mountain	130,000
Little Mountain	115,000
Henry's Fork	5,000

The allowable cut is based on commercial timber acres in each unit.

TABLE 6
ACCESS NEEDS

Road/Area Identification	Road Names	Location	Land Ownership	Benefitting Resource					
				Minerals	Range	Wildlife	Forestry	Recreation	Lands
1	Pine Creek	secs. 19-20, 22, 27, 30, T. 29 N., R. 101 W.	Private		X	X		X	X
2	Prospect Mountain	sec. 23, T. 27 N., R. 104 W. sec. 8, T. 28 N., R. 104 W.	Private		X	X		X	X
3	Little Colorado	sec. 36, T. 27 N., R. 109 W.	State		X	X		X	X
4	Bush Rim	sec. 36, T. 24 N., R. 102 W.	State		X	X		X	X
5	Natural Corrals	sec. 19, T. 21 N., R. 101 W. sec. 13, T. 21 N., R. 102 W.	Private						
6	Cedar Canyon Petroglyphs	secs. 1, 13, 15, 19, 21, 23, T. 22 N., R. 104 W. secs. 7, 17, 19, 21, T. 22 N., R. 103 W.	Private	X	X	X		X	X
7	White Mountain Petroglyphs	sec. 19, T. 22 N., R. 104 W. sec. 13, T. 22 N., R. 105 W.	Private	X	X	X		X	X
8	Fort LaClede/ Dug Springs	secs. 19, 21, 25, 27, T. 17 N., R. 98 W. secs. 13, 21, 23, 29 T. 17 N., R. 97 W. secs. 13, 19, 21, 23, T. 17 N., R. 96 W. sec. 19, T. 17 N., R. 95 W.	Private	X	X	X		X	X
9	Canyon Creek	secs. 17, 18, T. 12 N., R. 101 W. secs. 13, 22, T. 12 N., R. 102 W.	Private		X	X		X	X
10	Currant Creek	sec. 35, T. 15 N., R. 107 W. secs. 1, 2, T. 14 N., R. 107 W. secs. 4-6, 8, 10, T. 14 N., R. 106 W.	Private	X	X	X		X	X
11	Hickey Mountain	secs. 21-23, T. 12 N., R. 114 W. sec. 24, T. 13 N., R. 114 W.	Private	X		X	X	X	X

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TABLE 7
AREAS OF OIL AND GAS LEASE RESTRICTIONS BY HYDROCARBON POTENTIAL
(approximate acres)[1]

Category	Surface Ownership Federal Acres	Hydrocarbon Potential (Federal Surface and Subsurface Acres) High	Moderate	Low	Total
No Leasing					
Greater Red Creek ACEC (Red Creek Drainage)	55,880	20,810	12,230	26,430	59,470
Wind River Front (Eastern Portion)	88,510	0	0	92,990	92,990
Total No Leasing	**144,390**	**20,810**	**12,230**	**119,420**	**152,460**
No Surface Occupancy (NSO)[2]					
14-Mile Recreation Area	20	20	0	0	20
Big Sandy River and 1/4 mile buffer (1.5 miles)	240	0	0	240	240
Boars Tusk	90	90	0	0	90
Cedar Canyon, LaBarge, Sugarloaf, Tolar, and White Mountain Petroglyphs + 1/2 mile vista	1,600	770	480	350	1,600
Crookston Ranch	40	40	0	0	40
Cottonwood Canyon	160	0	160	0	160
Currant Creek Drainage	23,740	0	2,820	21,200	24,020
Dry Sandy Swales	20	0	0	20	20
Emmons Cone	60	60	0	0	60
Greater Sand Dunes ACEC (developed recreation sites and ORV parking lot)	50	50	0	0	50
LaClede and Dug Springs Stage Stations	20	20	0	0	20
Native American Burials	2	2	0	0	2
Natural Corrals ACEC	1,115	1,270	0	0	1,270
North and South Table Mountains	1,280	1,280	0	0	1,280
Oregon Buttes ACEC	3,450	0	0	3,450	3,450
Pilot Butte	120	0	0	120	120
Pine Butte	320	320	0	0	320
Pine Springs ACEC	6,030	0	0	6,030	6,030
Prehistoric Quarry	160	0	0	160	160
Raptor nesting (occupied nests, cliffs, bluffs, roosts, outcrops and pinnacles)	835	600	120	125	845
South Pass Historic Landscape (area visible within 1-mile buffer of Lander Cutoff and area visible within 3-mile buffer of Oregon Trail)	33,700	0	760	34,630	35,390
Special status plant species habitat[3]	3,610	2,600	100	920	3,620
Sweetwater River and 1/4 mile buffer (Wild & Scenic part, 5.8 miles)	1,860	0	0	1,860	1,860
Tri-Territory Marker	10	10	0	0	10
Wild horse herd viewing area + 1/2 mile buffer	500	0	500	0	500
Total No Surface Occupancy	**79,120**	**7,130**	**4,938**	**69,193**	**81,261**
Seasonal Restrictions[3]					
Crucial Antelope Winter Range	817,640	268,740	335,370	241,780	845,890
Crucial Deer Winter Range	676,830	130,630	74,590	500,690	705,910
Crucial Elk Winter Range	345,590	182,870	40,280	128,000	351,150
Crucial Moose Winter Range	33,270	8,770	6,500	23,080	38,350
Elk Calving Areas	85,830	55,610	6,130	26,330	88,070
Game Fish Spawning Areas (miles)	210	30	80	140	250

TABLE 7 (continued)
AREAS OF OIL AND GAS LEASE RESTRICTIONS BY HYDROCARBON POTENTIAL
(approximate acres)[1]

Category	Surface Ownership Federal Acres	Hydrocarbon Potential (Federal Surface and Subsurface Acres)			
		High	Moderate	Low	Total
Moose Parturition Areas	410	0	0	410	410
Mule Deer Parturition Areas	40,880	21,690	0	19,010	40,700
Raptor Habitat	361,330	263,780	47,750	57,480	369,010
Sage Grouse Nesting Areas (1 3/4 mile from lek)	447,170	110,740	218,770	131,840	461,350
Total Seasonal Restrictions	**1,954,560**	**934,400**	**483,870**	**622,190**	**2,040,460**
Controlled Surface Use Restrictions[2]					
Continental Divide Snowmobile Trail (1/4 mile buffer)	2,330	0	0	2,330	2,330
Floodplains, wetlands, and riparian areas (within 500' of 100-year floodplains and waters)[4]	153,120	33,370	65,700	58,250	157,320
Highly erodible soils	158,110	62,390	34,390	63,100	159,880
Historic Trails (1/4 mile or visual horizon)[5]	64,910	34,430	25,400	23,740	83,570
Monument Valley	69,940	69,940	0	0	69,940
Pine Mountain and Sugarloaf Basin	150,080	64,400	60	88,040	152,500
Recreation sites + 1/4 mile buffer	930	330	130	470	930
Riparian Areas	8,730	2,780	1,718	4,940	9,438
Sage Creek Watershed	52,270	6,660	32,450	13,850	52,960
Sage Grouse Leks and 1/4 mile buffer	8,170	1,420	4,410	2,660	8,490
Slopes greater than 25%	188,090	84,440	29,730	83,700	197,870
South Pass Historic Landscape (area not visible within 1-mile buffer of Lander Cutoff and area not visible within 3-mile buffer of Oregon Trail)	20,080	0	460	20,640	21,100
Special status plant species potential habitat[6]	39,870	7,090	16,890	19,690	43,670
Steamboat Mountain Crucial Overlap[7]	27,000	27,000	0	0	27,000
Superior Recharge (modified)[8]	7,120	8,180	0	0	8,180
View from Fontenelle Reservoir	120	220	0	0	220
VRM Class II Lands	681,560	278,300	66,200	387,140	731,640
Within 100' of inner gorge of intermittent/ephemeral streams	7,170	4,130	920	2,500	7,550
Within 1/4 mile of Sweetwater River (Recreational part, 3 4 miles)	1,090	0	0	1,090	1,090
Total Controlled Surface Use Restrictions	**1,189,340**	**541,320**	**180,250**	**533,850**	**1,255,420**
Special Management					
Steamboat Mountain ACEC[11]	43,270	44,190	0	0	44,190
Greater Sand Dunes ACEC[12]	70,980	58,600	13,190	0	71,790
Rock Springs Green River Expansion area[9]	26,600	13,860	6,570	10,510	30,940
Wind River Front (Western Portion)[10]	172,630	0	29,350	143,390	172,740
Total Special Management	**313,350**	**116,650**	**49,110**	**153,900**	**319,660**

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[1] Lease parcels are designed on aliquot parts. The actual acreage for the lease may vary.

[2] Refer to Appendix 2. These requirements apply to all surface disturbing activities.

[6] This refers to the populations of those plants designated in the Special Status Plant ACEC. As new populations are identified, their locations will be added to this total.

TABLE 7 (continued)
AREAS OF OIL AND GAS LEASE RESTRICTIONS BY HYDROCARBON POTENTIAL
(approximate acres)[1]

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[4] Surface disturbing activities that could adversely affect water quality, and wetland and riparian habitat will avoid the area within 500 feet of or on 100-year floodplains, wetlands, or perennial streams. The 100-year floodplains, wetlands, and riparian areas will be closed to any new permanent facilities. Activities could be allowed if a site specific analysis determines that no adverse impacts would occur (see the Watershed Management section).

[5] All activity will conform with requirements of Class II visual values.

[6] This includes the actual plant sites and potential habitat. Acres will change as floristic inventories identify actual areas with potential. Searches will be required prior to surface disturbance activities.

[7] To be determined with completion of a comprehensive and detailed site specific activity or implementation plan encompassing the combined Steamboat Mountain and Greater Sand Dunes areas.

[8] The Ericson Formation recharge area, for the town of Superior's sole source aquifer and overlying formations, will be protected through the use of mitigation.

[9] Leasing will allow for consultation with local communities, and provide direction to protect public health and safety.

[10] Surface disturbing activities will be limited through controlled surface use requirements or closing areas where maximum resource protection is necessary.

TABLE 8
SEASONAL RESTRICTIONS FOR ALL SURFACE DISTURBANCE ACTIVITIES

Affected Areas	Restriction	Restricted Area
Big Game Crucial Winter Ranges	Nov. 15 - April 30	Antelope, elk, moose, and mule deer crucial winter ranges
Parturition Areas	May 1 - June 30	Designated parturition areas
Sage Grouse Leks and Nesting Areas	Feb. 1 - July 31	Up to 2-mile radius of lek
Golden Eagle Nest	Feb. 1 - July 31	Within one-half mile radius
Osprey Nest	Feb. 1 - July 31	Within one-half mile radius
Swainson's Hawk Nest	Feb. 1 - July 31	Within one-half mile radius
Ferruginous Hawk Nest	Feb. 1 - July 31	Within one mile radius
Coopers Hawk Nest	Feb. 1 - July 31	Within one-half mile radius
Burrowing Owl Nest	Feb. 1 - July 31	Within one-half mile radius
Merlin Nest	Feb. 1 - July 31	Within one-half mile radius
Other Raptors	Feb. 1 - July 31	Within one-half mile radius
Game Fish Spawning Areas	Spring spawning, Fall spawning	Determined on case-by-case basis

TABLE 9
AREAS CLOSED TO COAL EXPLORATION AND SODIUM PROSPECTING

Area	Approximate Acres
14 Mile Recreation Area	20
Boars Tusk	90
Crookston Ranch	40
Currant Creek Drainage	23,740
Dry Sandy Swales	20
Emmons Cone	60
Floodplains (including Salt Wells Creek/Bitter Creek)	95,550
Interstate 80 (I-80)	558
Incorporated Cities and Towns	3,770
LaClede and Dug Springs Stage Stations	20
Native American Burials	2
Natural Corrals ACEC	1,115
North and South Table Mountains	1,280
North Fork Vermillion Creek	440
Oregon Buttes ACEC	3,450
Petroglyphs (Cedar Canyon, LaBarge, Sugarloaf, Tolar, and White Mountain) (1/2 mile vista)	1,600
Pilot Butte	120
Pine Butte	320
Pine Springs ACEC	6,120
Prehistoric Quarry	160
Raptor Nesting	835
Red Creek ACEC	55,800
Rock Springs Green River Expansion Area	26,600
Sage Grouse Leks (1/4 mile buffer)	8,170
South Pass Historic Landscape	33,700
Special Status Plant Species Sites	3,610
Steamboat Mountain Area[1] (outside area w/coal recommendations)	—
Superior Recharge	1,864
Sweetwater River (1/4 mile buffer)	1,460
Tri Territory Marker	10
Union Pacific Railroad	509
Wild Horse Herd Viewing Area (1/2 mile buffer)	500
Wilderness Study Areas	172,000

[1] Deferred until completion of the site-specific implementation plan.

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TABLE 10
SUMMARY DESCRIPTION OF COAL SCREENING PROCESS RESULTS AND COAL MANAGEMENT ACTIONS

Coal Screening Process Results	**Federal Coal Lands (acres)**
Total Federal Coal Development Potential Area	475,700
Leased Federal Coal Lands (not evaluated)	(30,200)
Federal Coal Lands Unsuitable for (closed to) Leasing Consideration	(12,600)
Federal Coal Lands Unacceptable for (closed to) Leasing Consideration	(10,410)
Coal Management Actions	
Remaining Federal Coal Lands Acceptable for Leasing Consideration	422,490
Portion Subject to No Surface Occupancy Restriction	13,340
Portion Potentially Subject to a No Surface Occupancy on Raptor Habitat	112,920
Portion Subject to No Surface Mining Restriction and Limited Surface Facilities Restriction	13,042

TABLE 11
AREAS CLOSED TO MINERAL MATERIAL SALES

Area	Approximate Acres
14-Mile	20
Big Sandy and 1/4 mile Buffer	480
Boars Tusk	90
Cedar Canyon ACEC	360
Cottonwood Canyon	160
Crookston Ranch	40
Currant Creek Drainage	23,740
Dry Sandy Swales	20
Dug Springs Stage Station	10
Emmons Cone	60
LaClede Stage Station	10
Native American Burial Sites	2
Natural Corrals ACEC	1,115
North and South Table Mountains	1,280
Occupied Raptor Nests	835
Oregon Buttes ACEC	3,450
Parting-of-the-Ways	40
Pilot Butte	120
Pine Butte	320
Pine Springs ACEC	6,030
Prehistoric Quarry Site	160
Red Creek ACEC	55,880
Rock Art Sites	1,600
Sand Dunes ACEC	41,640
South Pass Historic Landscape ACEC	5,260
South Pass Historic Landscape (in the Vista and outside the 5,260 of the ACEC)	53,780
Special Status Plant Species Sites	3,610
Steamboat Mountain ACEC[1]	
Sweetwater River and 1/4 Mile Buffer	1,460
Wild Horse Viewing	500
TOTAL ACRES	**245,342**

NOTE: Surface collecting (picking materials off the ground by hand) would be considered in these areas on a case-by-case basis.

[1] Pending completion of site specific implementation plan.

TABLE 12
AREAS CLOSED TO GEOPHYSICAL VEHICLES & EXPLOSIVE CHARGES

Area	Approximate Acres
14-Mile Recreation Area	20
Boars Tusk	500
Special Status Plant Species Locations	3,610
Cedar Canyon Petroglyphs	515
Crookston Ranch	40
Dry Sandy Swales (1 mile)	20
Dug Springs Stage Station	10
LaBarge Bluffs Petroglyphs	20
LaClede Stage Station	10
Native American Burial Sites	2
Natural Corrals	20
Oregon Trail/Parting of the Ways	40
Pine Springs ACEC	90
Prehistoric Quarry Site	160
Sugarloaf Petroglyphs	20
Tolar Petroglyphs	20
White Mountain Petroglyphs	20
Wilderness Study Areas (excluding Adobe Town)	72,000
TOTAL	**77,117**

TABLE 13
ORV DESIGNATIONS

AREA	DESIGNATION	APPROXIMATE ACRES	SEASON/DATES OF RESTRICTION AND REASON FOR RESTRICTION
Adobe Town-Haystacks	Limited to designated roads & trails	54,000	To protect fragile and highly erodible soils
Big Game Winter Ranges	Limited through seasonal closures (11/15 - 4/30 as needed)	1,500,000	To reduce stress to wintering animals. Closure to over-the-snow vehicles would be evaluated on a case-by-case basis in conjunction with the Wyoming Game & Fish Department
Cedar Canyon ACEC	Limited to designated roads and trails	2,550	Limited to protect wildlife and cultural values (including over-the-snow vehicles)
Crookston Ranch	Closed	40	To protect historic site
Deer Parturition Areas	Limited through seasonal closures (May 1 to June 30 as needed)	40,880	To reduce stress to deer
Dry Sandy Swales	Closed	20	Area closed to protect integrity of setting and soils
Dug Springs Stage Station	Limited to designated roads and trails	10	Limited to protect historic values
Elk Calving Areas	Limited through seasonal closures (to be decided by biologist - May 1 to June 30 as needed)	85,830	To reduce stress to elk
General GRRA	Limited to existing roads and trails	2,436,595	To reduce resource damage
Greater Red Creek ACEC	Closed	8,020	Area closed to protect watershed values
	Limited to designated roads and trails (includes Currant Creek, Sage Creek, and remainder of Red Creek)	123,870	To protect watershed values. Transportation planning would be done to protect resource values
Greater Sand Dunes ACEC (Eastern Portion)	Open	10,500	Area designated open on active sand dunes to allow the recreating public a place to play in the sand dunes
	Limited to existing roads and trails	5,810	Limited to protect resource values
	Closed	90	Closed around Boars Tusk to protect geologic values

TABLE 13 (continued)
ORV DESIGNATIONS

AREA	DESIGNATION	APPROXIMATE ACRES	SEASON/DATES OF RESTRICTION AND REASON FOR RESTRICTION
Green River City Limits	Limited to designated roads and trails within a 2-mile radius around the city limits	4,500	To reduce impacts from ORV freeplay
LaBarge Bluffs Petroglyphs	Closed	20	Area closed to protect cultural values
	Limited to designated roads and trails	100	Limited to protect cultural values
LaClede Stage Station	Limited to designated roads and trails	10	Limited to protect historic values
Monument Valley	Limited to designated roads and trails	69,940	To protect paleontological and watershed values. A transportation road plan would be prepared
Moose Calving Areas	Limited through seasonal closures (to be decided by biologist. May 1 to June 30 as needed)	410	To reduce stress to moose
Natural Corrals ACEC	Closed	20	NRHP site and the trail 1/2 mile to the spring are closed to protect wildlife and cultural values
	Limited to designated road and trails	1,300	Limited to protect resource values
North & South Table Mountains	Limited to designated roads and trails	1,290	Limited to protect cultural and wildlife values
Oregon Buttes ACEC	Closed	3,480	All of the ACEC is closed to vehicle traffic to protect adjacent WSA values
Parting of the Ways	Limited to designated roads and trails	40	Limited to protect historical values
Pine Mountain	Limited to designated roads and trails	64,200	To protect watershed values. Transportation planning would be done to protect resource values
Pine Springs ACEC	Closed	60	Closed yearlong within fences including over the snow vehicles to protect cultural values
	Closed	8,300	Closed yearlong - including over the snow vehicles to protect cultural and prehistoric values
	Limited to existing roads and trails	730	Limited to protect resource values

TABLE 13 (continued)
ORV DESIGNATIONS

AREA	DESIGNATION	APPROXIMATE ACRES	SEASON/DATES OF RESTRICTION AND REASON FOR RESTRICTION
Prehistoric Quarry Site	Closed	160	Area closed to protect cultural values
Raptor Nesting Areas	Limited through seasonal closures (2/1 through 7/31)	835	To protect nesting raptors
Red Desert	Limited to designated roads and trails	245,480	Limited to protect scenic resource values
Riparian Areas	Limited to existing roads and trails	8,730	To protect riparian and watershed values. During muddy conditions vehicle travel will be limited to existing roads and trails to protect soil and watershed values
Sage Creek Mountain	Limited to existing roads and trails	1,300	Limited to protect cultural values and T&E plants
South Pass	Limited to designated roads and trails	33,700	Limited to protect cultural resource values
Special Status Plant Species	Closed	3,640	Closed yearlong to protect plant populations. (Does not apply to over the snow vehicles.)
Steamboat Mountain ACEC	Limited to designated roads and trails Seasonal closures to be determined	43,270	To protect wildlife values
Steep Slopes of White Mountain	Limited to designated roads and trails	68,640	To protect watershed and visual values
Sugarloaf Basin	Limited to designated roads and trails	85,800	To protect watershed values. Transportation planning would be done to protect resource values
Sugarloaf Petroglyphs	Closed	20	Area closed to protect cultural values
	Limited to designated roads and trails	180	Limited to protect cultural values
Tolar Petroglyphs	Closed	20	Area closed to protect cultural values
	Limited to designated roads and trails	310	Limited within 1/2 mile radius to protect cultural values
White Mountain Petroglyphs ACEC	Closed	20	Closed to maintain integrity of setting and protect cultural values. Vehicle travel limited to parking area. All other acreage is closed to vehicle travel
	Limited to designated roads and trails	[illegible]	Limited within 1/2 mile radius

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TABLE 13 (continued)
ORV DESIGNATIONS

AREA	DESIGNATION	APPROXIMATE ACRES	SEASON/DATES OF RESTRICTION AND REASON FOR RESTRICTION
Wilderness Study Areas	Closed	172,160	To protect naturalness, solitude, and opportunities for unconfined recreation.
Wind River Front Special Recreation Management Area	Limited to designated roads and trails	260,580	To protect the Class I airshed, scenic, watershed, and wildlife values, recreation use, and riparian and vegetation resources.

NOTE: WSAs in the resource area (excluding Adobe Town) are closed to non-motorized mechanical transport, as well as motorized transport.

TABLE 14
VRM CLASSES

VRM Class	Approximate Acres
Class I	0
Class II	681,560
Class III	632,370
Class IV	2,251,810
Rehabilitation Areas[1]	24,160

[1] By definition, rehabilitation is necessary to bring these areas up to one of the four other classes.

TABLE 15
WILD HORSE APPROPRIATE MANAGEMENT LEVELS

Area	AML
Great Divide Basin WHHMA	415-600
White Mountain WHHMA	205-300
Salt Wells Creek WHHMA	251-365
Little Colorado Area	69-100
Adobe Town[1]	165-235

[1] Only Rock Springs District portion.

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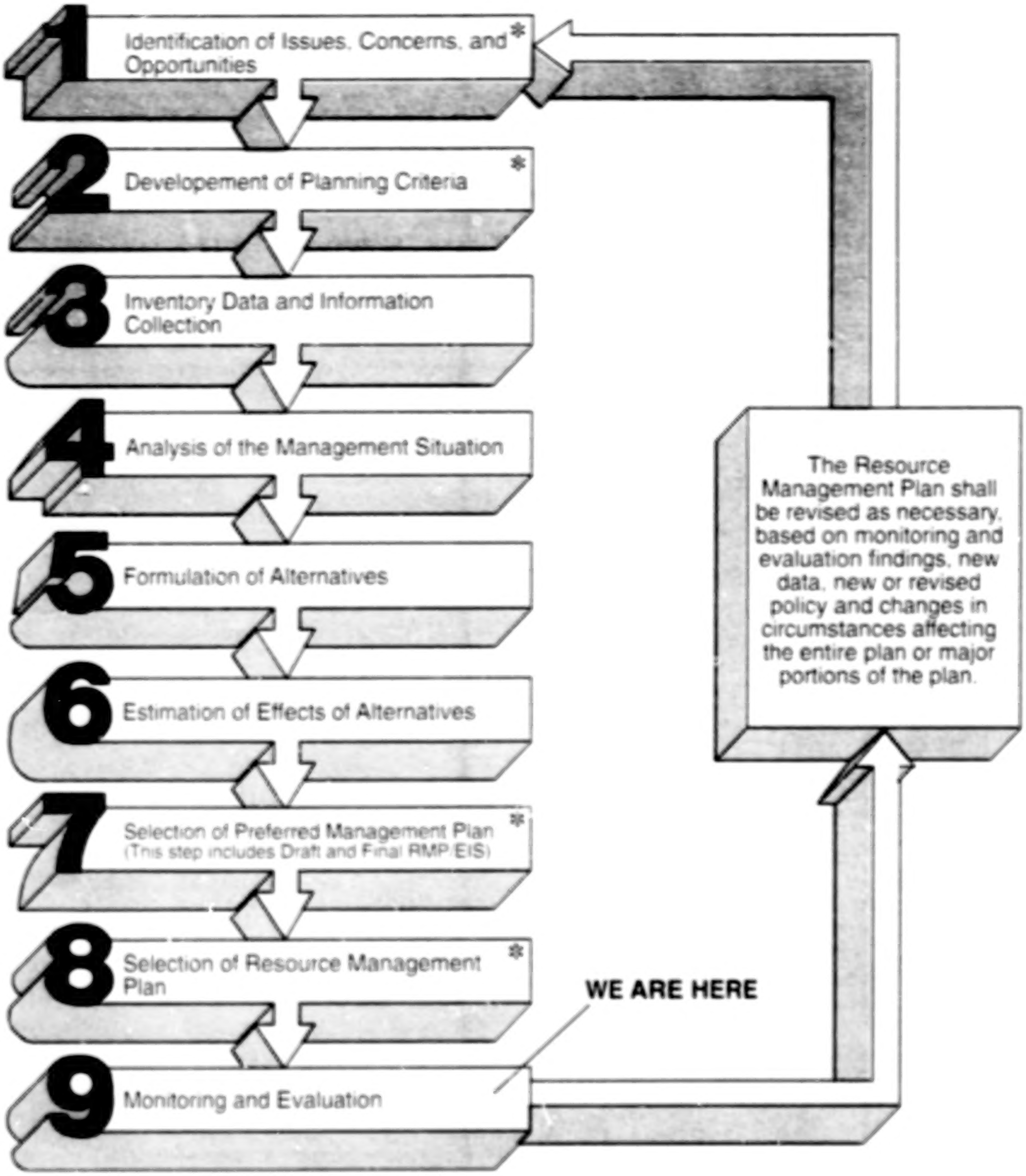

1 Identification of Issues, Concerns, and Opportunities *
2 Developement of Planning Criteria *
3 Inventory Data and Information Collection
4 Analysis of the Management Situation
5 Formulation of Alternatives
6 Estimation of Effects of Alternatives
7 Selection of Preferred Management Plan *
(This step includes Draft and Final RMP/EIS)
8 Selection of Resource Management Plan *
9 Monitoring and Evaluation
WE ARE HERE

The Resource Management Plan shall be revised as necessary, based on monitoring and evaluation findings, new data, new or revised policy and changes in circumstances affecting the entire plan or major portions of the plan.

*Public Participation Opportunities

Figure 1

Planning Process

Green River Planning Area

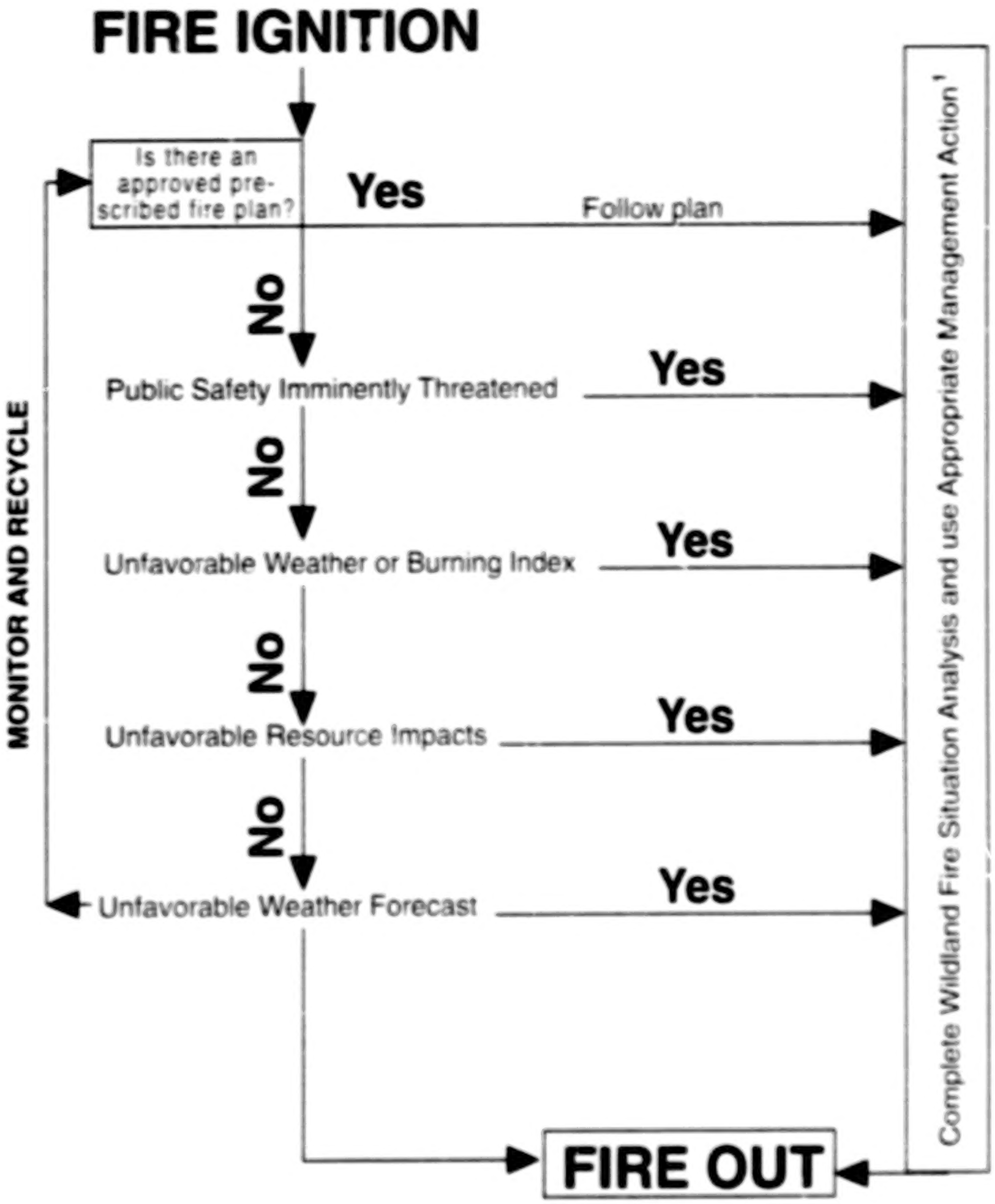

FIRE IGNITION
Is there an approved prescribed fire plan?
Yes
Follow plan
No
Public Safety Imminently Threatened
Yes
No
Unfavorable Weather or Burning Index
Yes
No
Unfavorable Resource Impacts
Yes
No
Unfavorable Weather Forecast
Yes
MONITOR AND RECYCLE
Complete Wildland Fire Situation Analysis and use Appropriate Management Action[1]
FIRE OUT

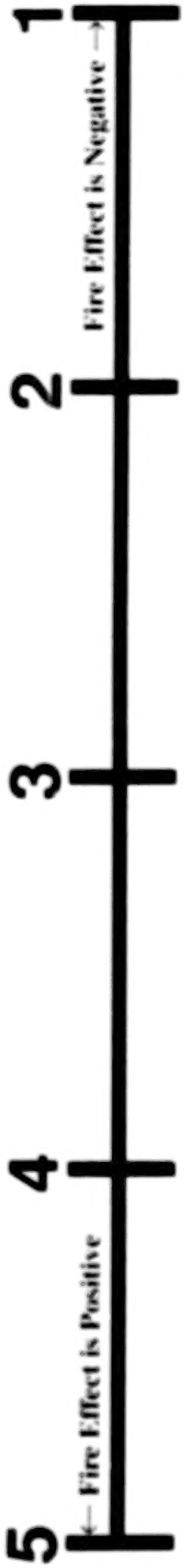
Figure 2

Unplanned Ignitions Fire Decision Chart

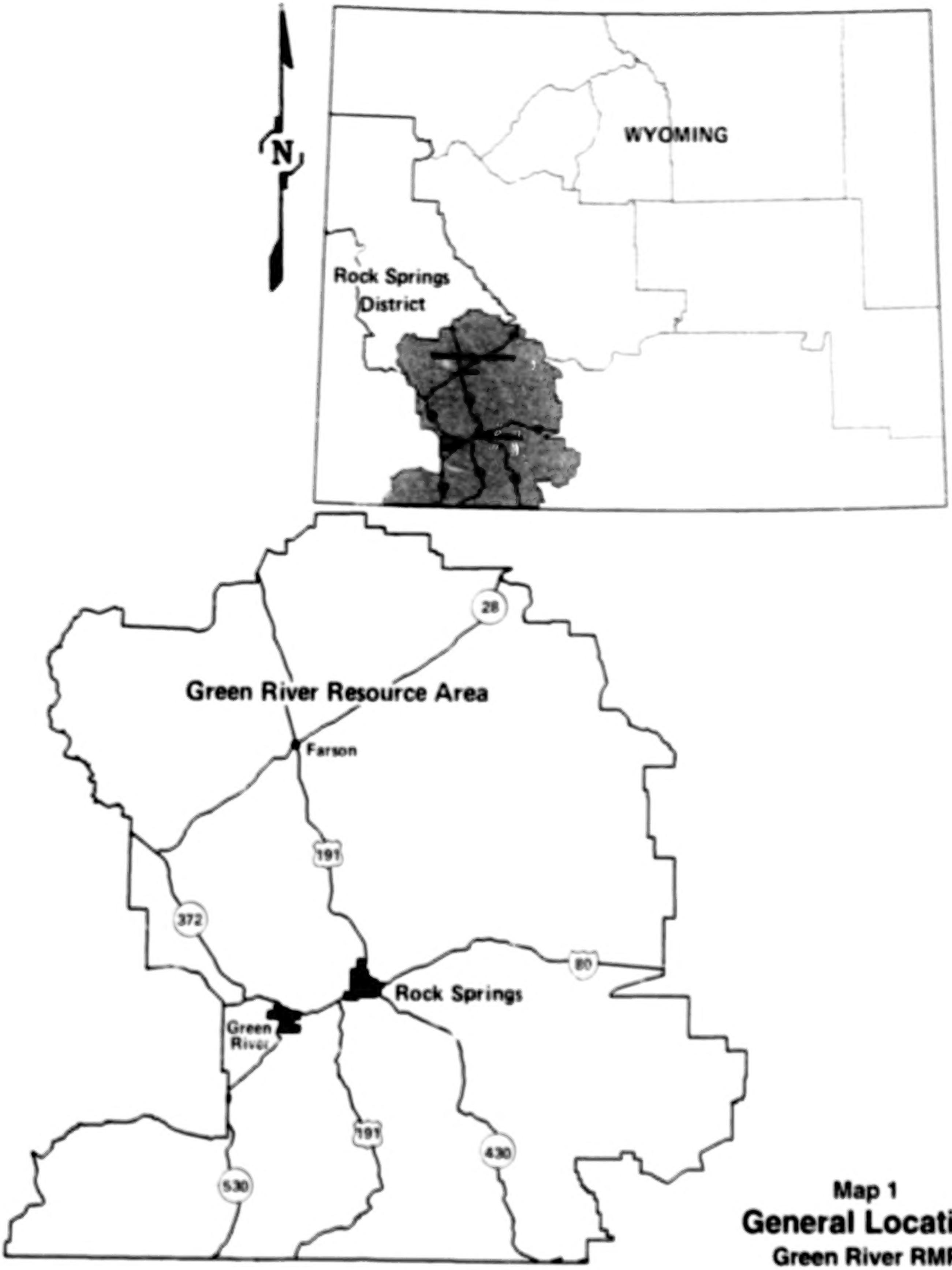
Green River RMP

Figure 2 (continued)

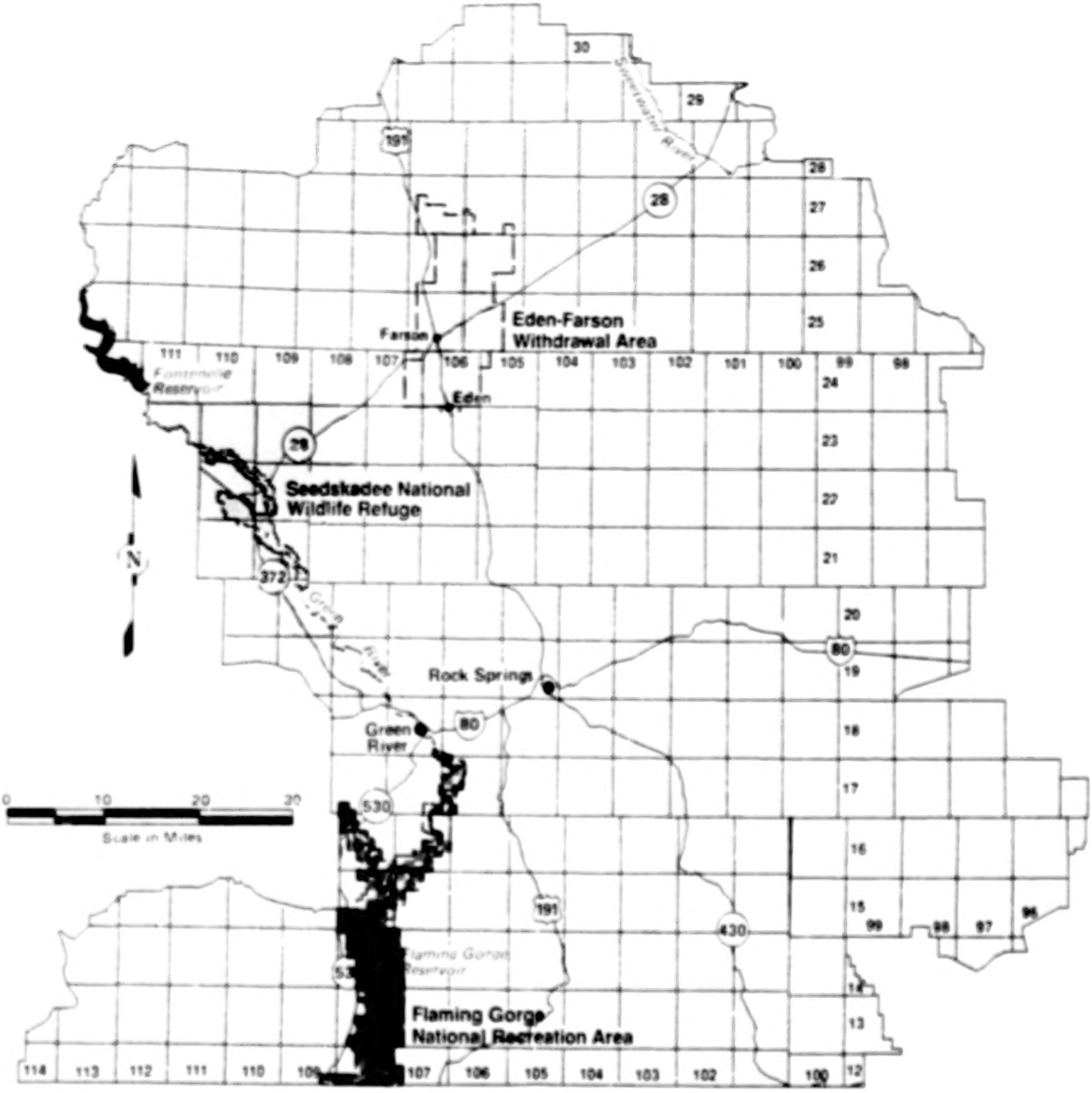
[1] Appropriate management actions are derived through the Wildland Fire Situation Analysis and are generally based on the following criteria.



Scale value = 1	**Fire Suppression constraints:**
Suppression tactic is generally full control High protection values High rehabilitation costs High suppression costs High Risk Management	Extremely Limited to None
Scale value = 2	**Fire Suppression constraints:**
Modified Suppression tactics Moderate Suppression costs Large rehabilitation needs High resource values Moderate Risk Prescribed fire limited to areas easily protected	Moderately Limited to None
Scale value = 3	**Fire Suppression constraints:**
Limited Suppression tactics Low Suppression costs Low rehabilitation needs Prescribed fire use is important Fire Dependent Ecosystems involved High to moderate resource values Low risk	-Use of heavy equipment limited -Retardant limited -Complete rehab of fire lines
Scale value = 4	**Fire Suppression constraints:**
Limited use of suppression tactics Prescribed fire used on a landscape basis Moderate Suppression costs Fire rehabilitation is inappropriate Resource values complimented by fire	Same as 3 plus: -No dug fire lines -Natural boundaries used extensively -Fire costs may not exceed value
Scale value = 5	**Fire Suppression constraints:**
Suppression tactics viewed as ecosystem threatening or opposing. Prescribed fire use on landscape basis both management and natural ignited. Resource values highly dependent on fire.	Same as 4 plus: -Extensive use of resource monitoring



Map 1
General Location
Green River RMP



Bureau of Reclamation Administered Land

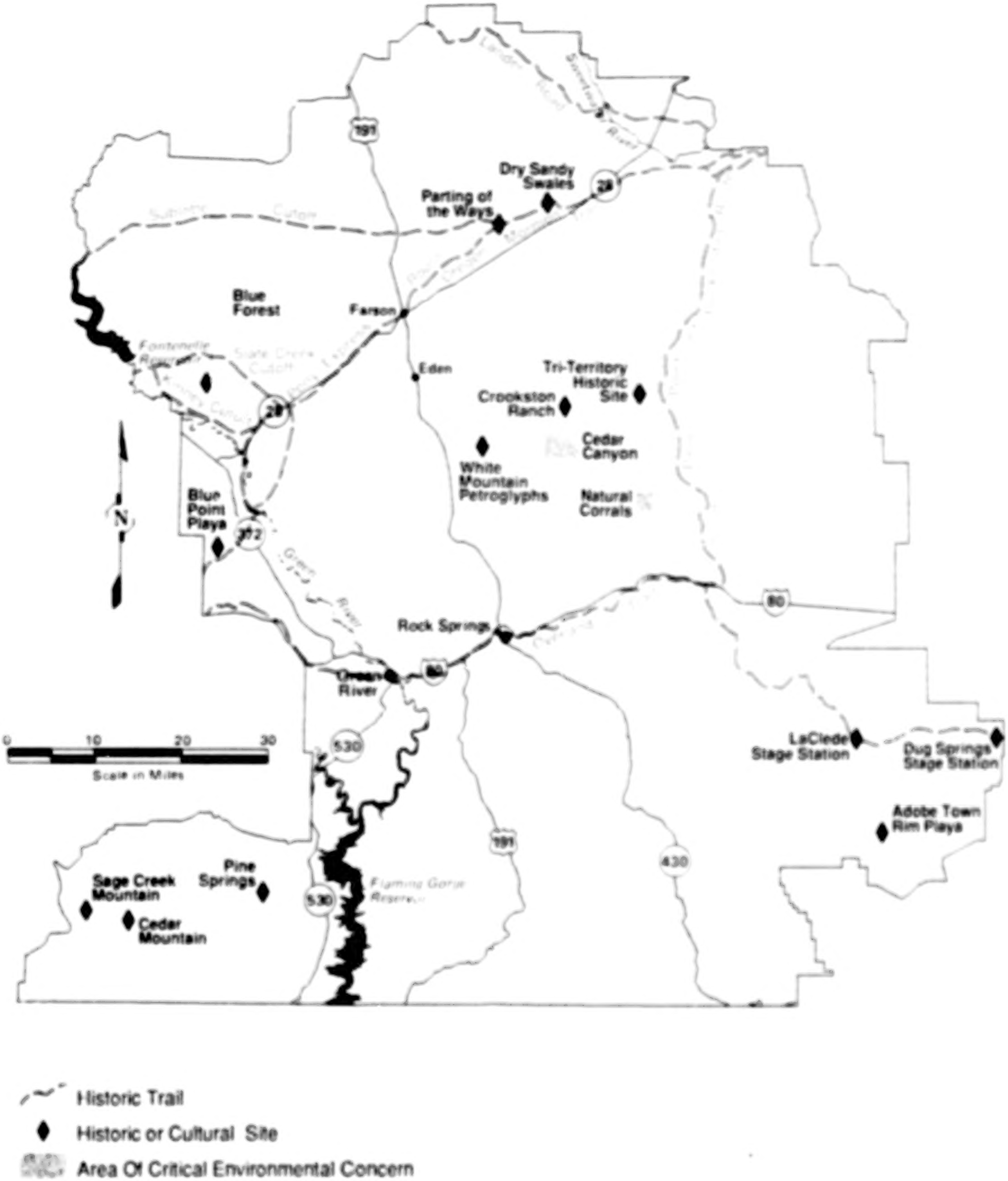
▨ U S Fish and Wildlife Service Administered Land

■ National Forest Service Administered Land

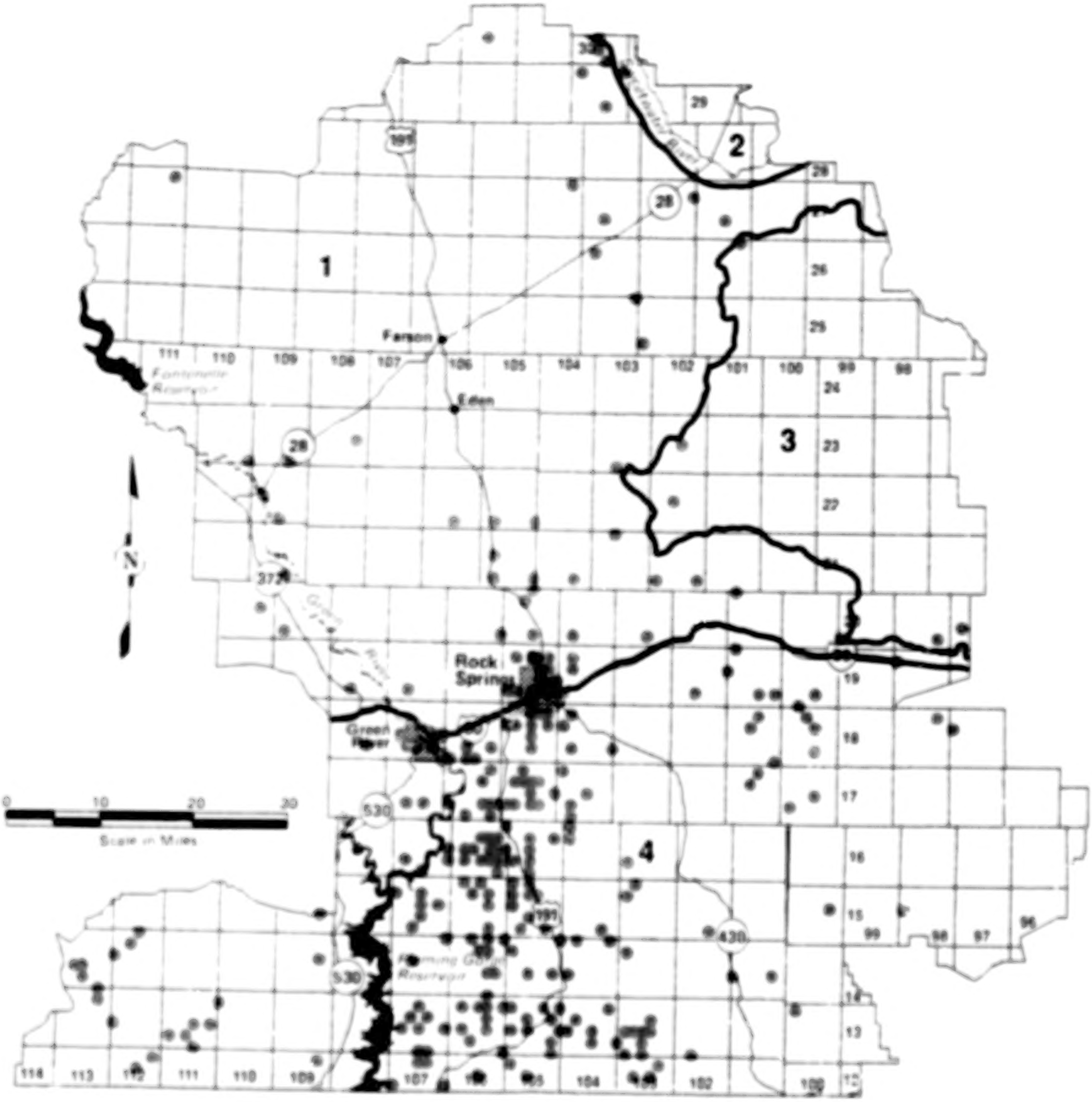
Map 2

Other Agency Administered Land

Green River RMP



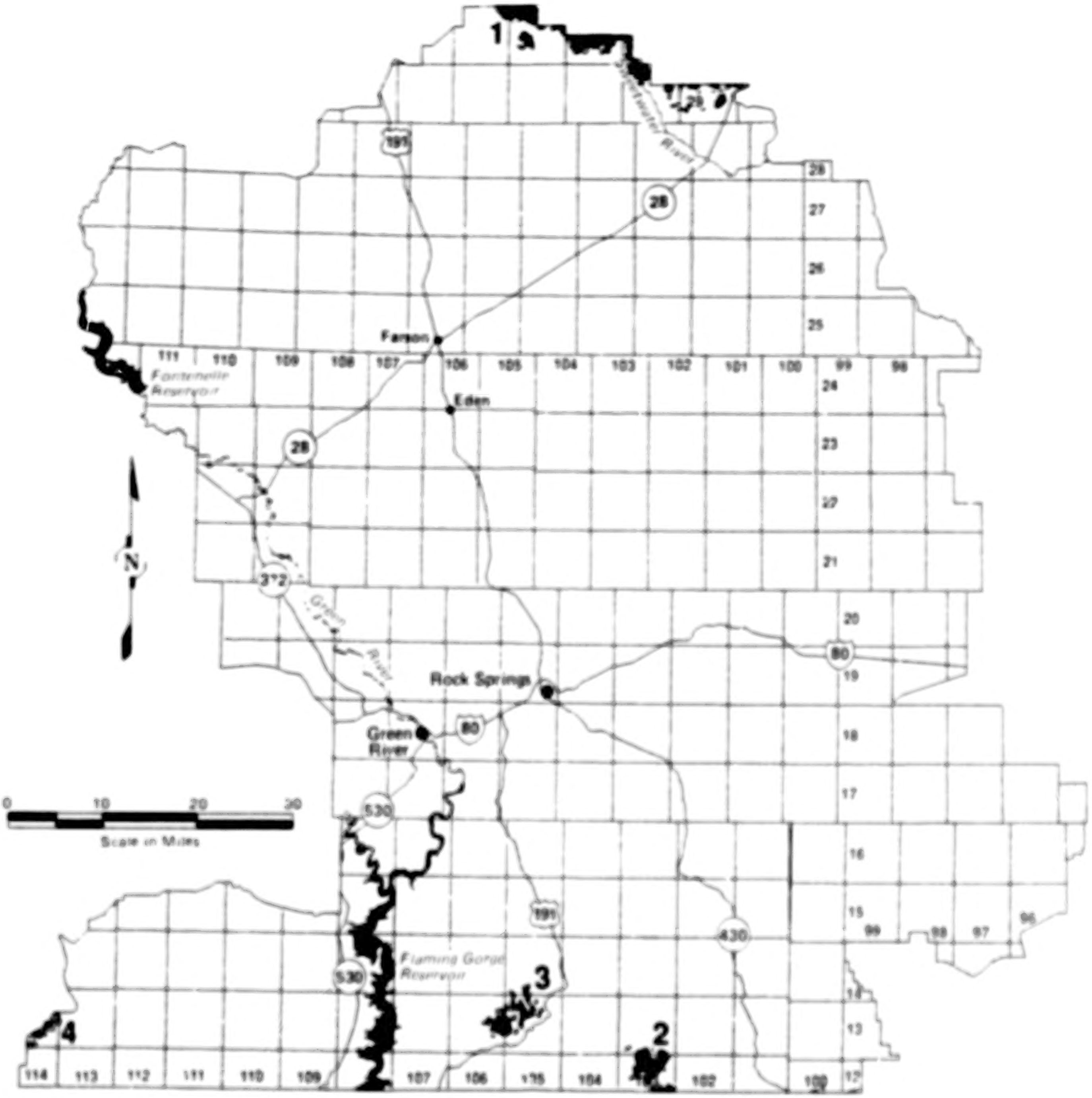
Map 3
Select Cultural Resource Sites and Historic Trails
Green River RMP



● Wildfire Occurence (1980-1989)

4 Fire Management Area

Map 4
Fire Management
Green River RMP



▨ Timber Compartment

1 Wind River Front

2 Pine Mountain

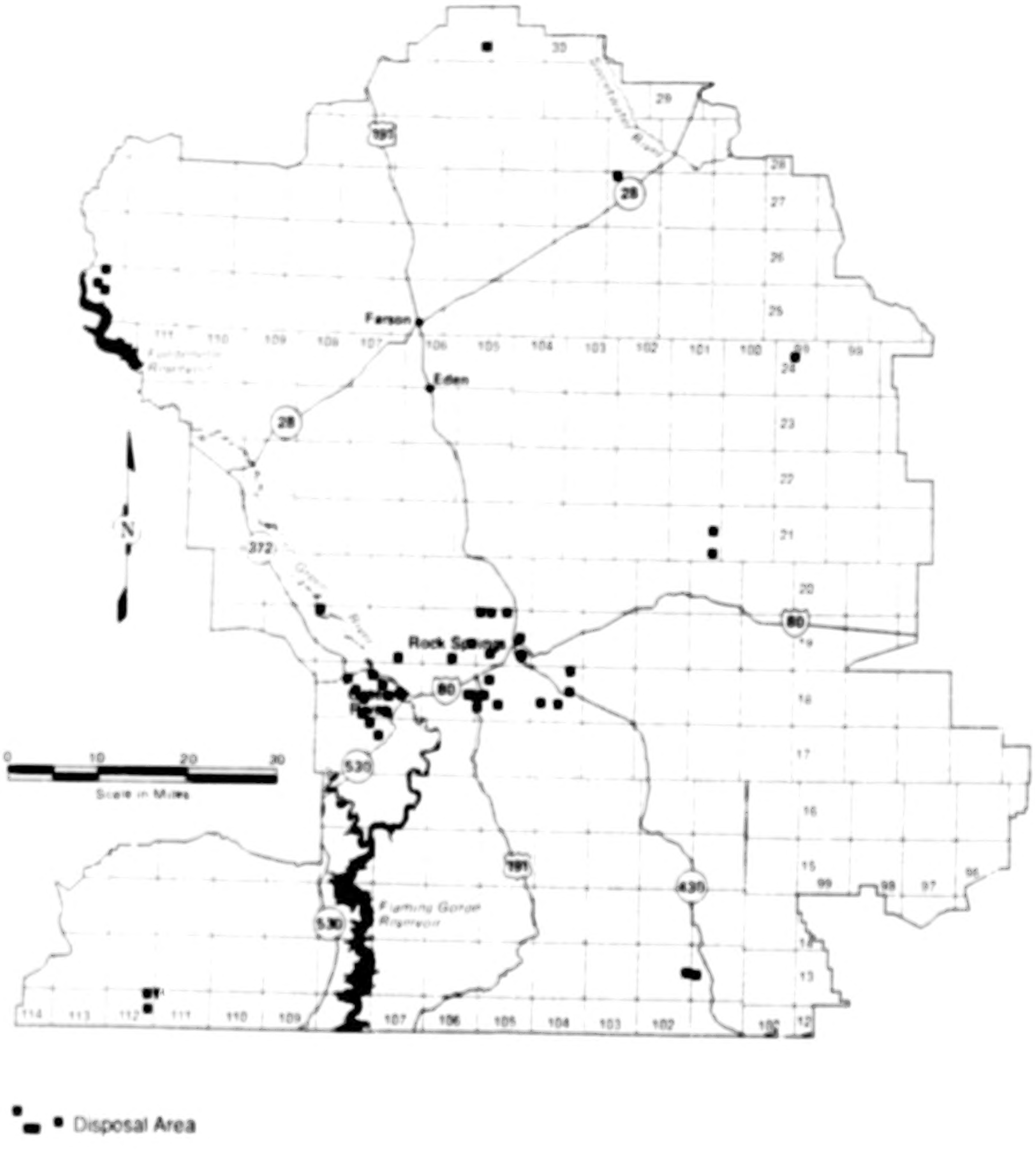
3 Little Mountain

4 Hickey-Table Mountain

Map 5

Timber Compartments

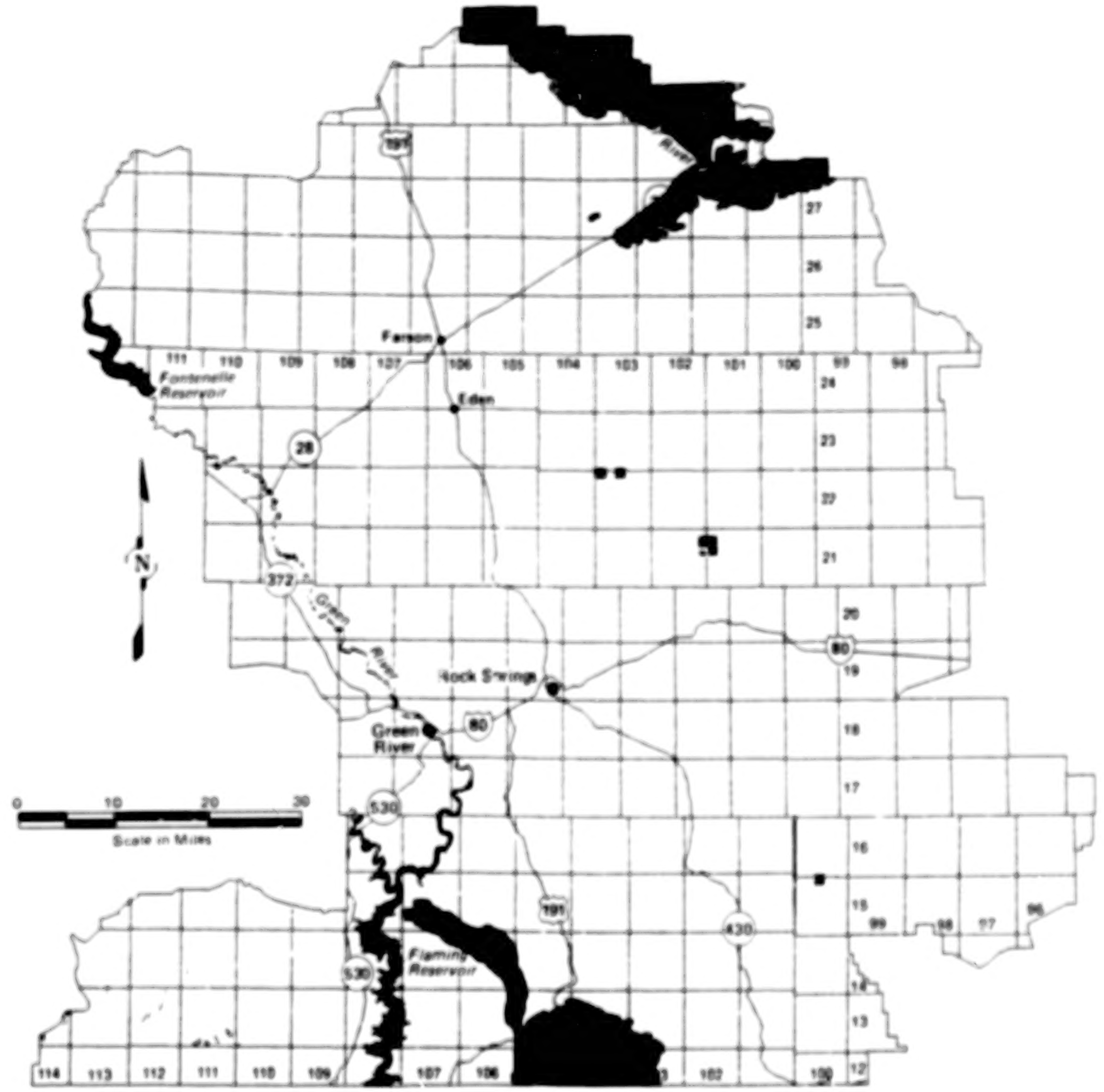
Green River RMP



Map 6

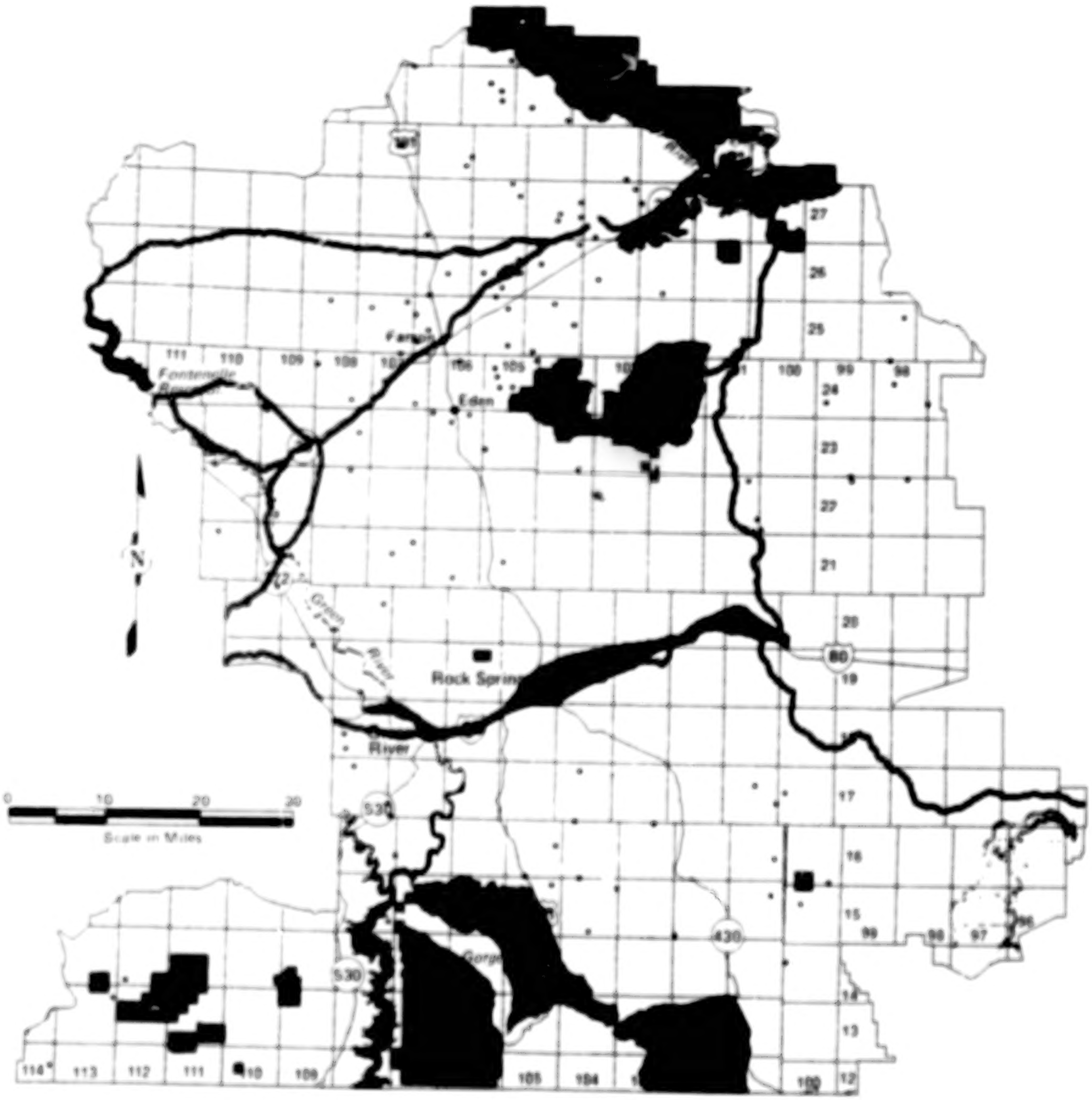
Land Tenure Adjustment Parcels

Green River RMP



▆ Exclusion Areas

Map 7
Rights-of-Way Exclusion Areas
Green River RMP

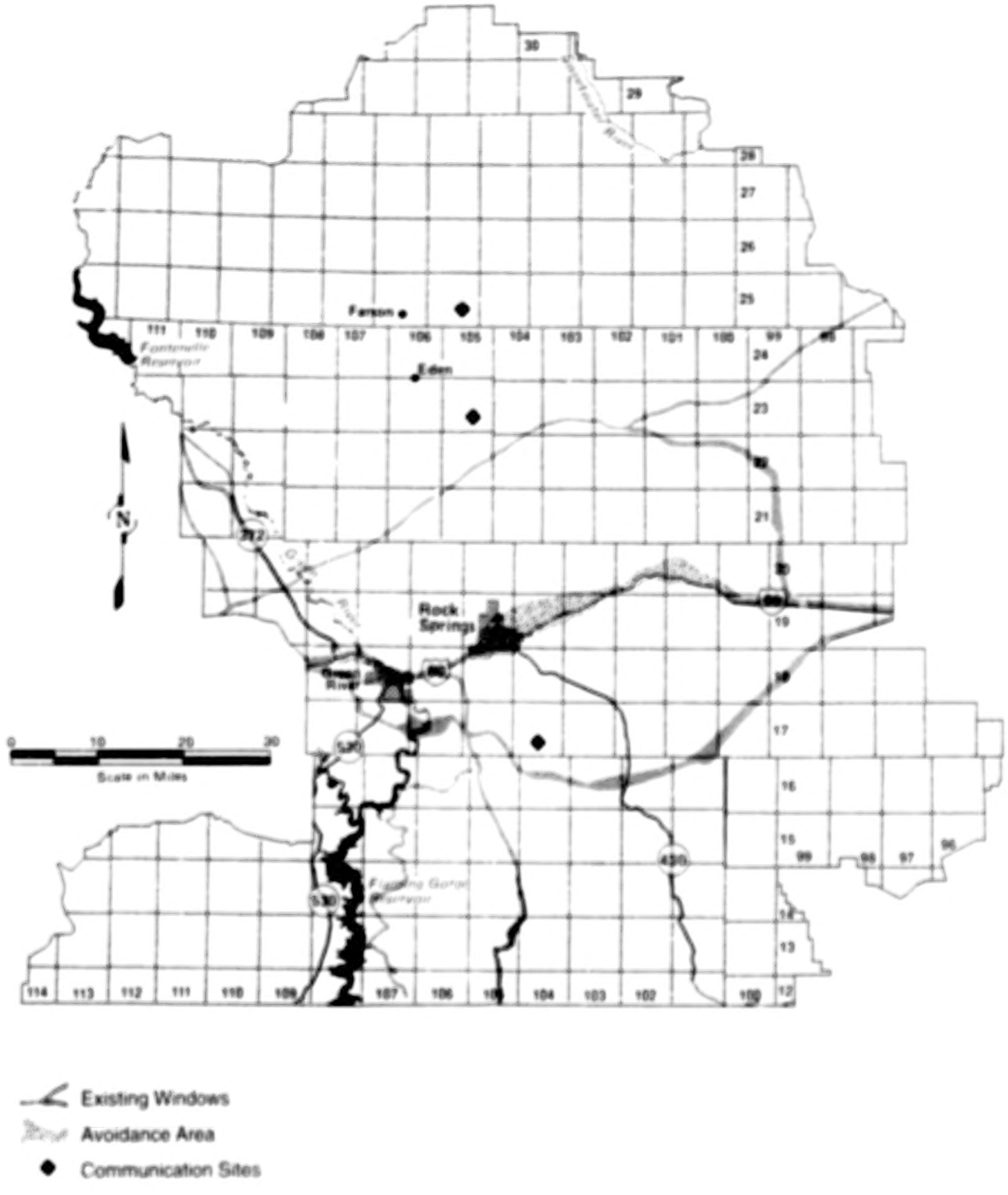


■ Avoidance Areas

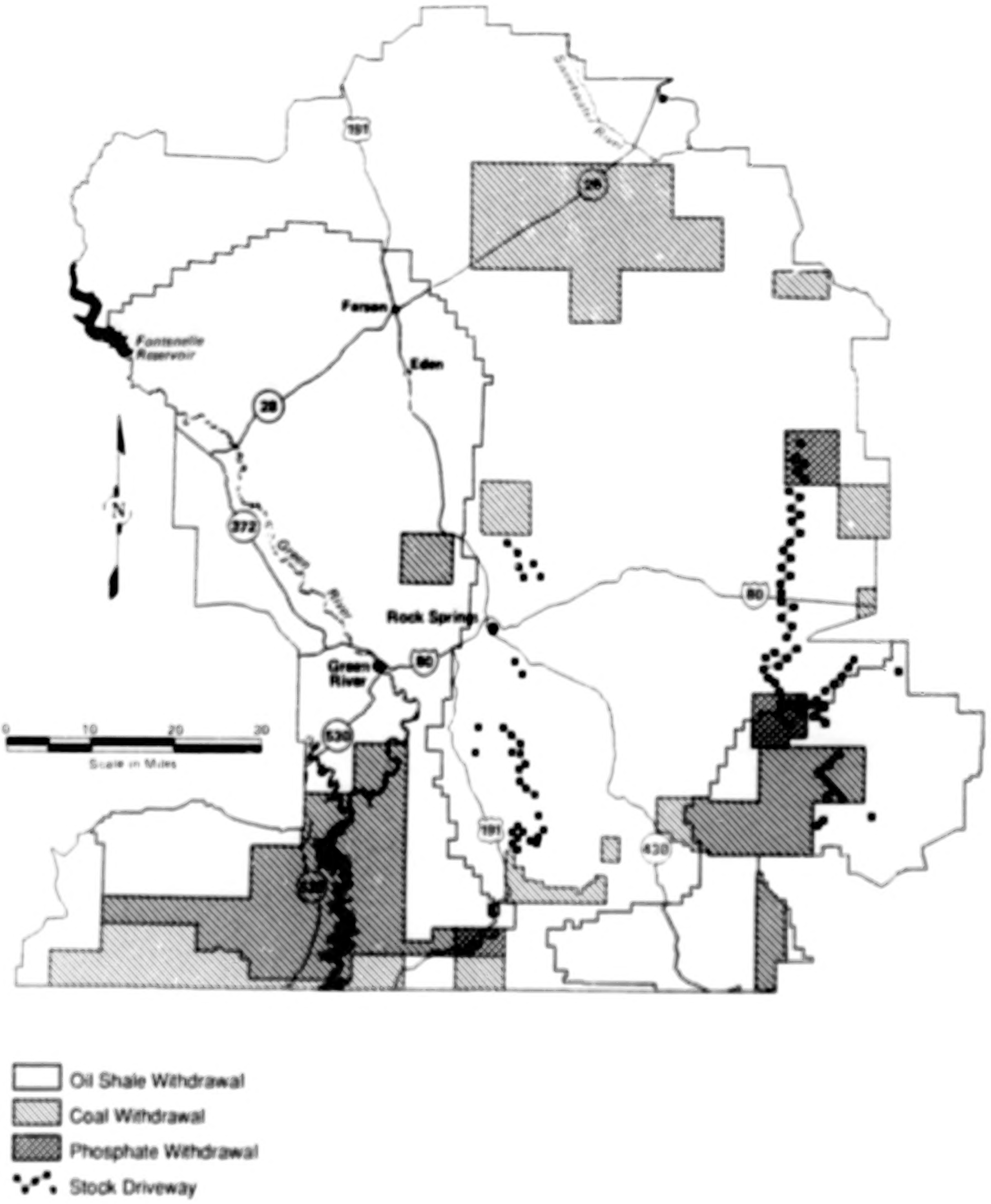
Map 8

Rights-of-Way Avoidance Areas

Green River RMP



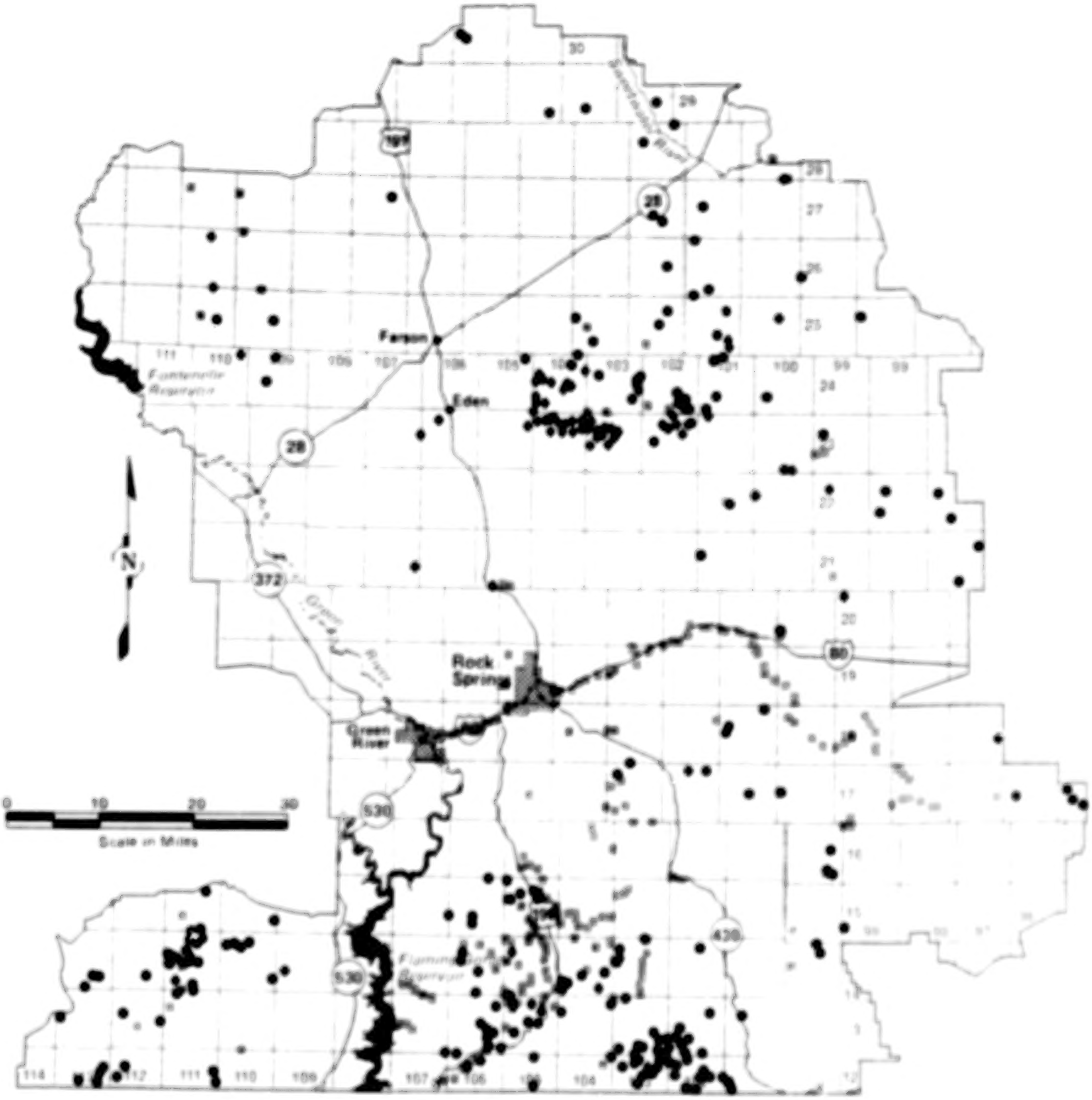
Map 9
Rights-of-Way Windows and Communication Sites
Green River RMP



Map 10

Existing Withdrawals

Green River RMP

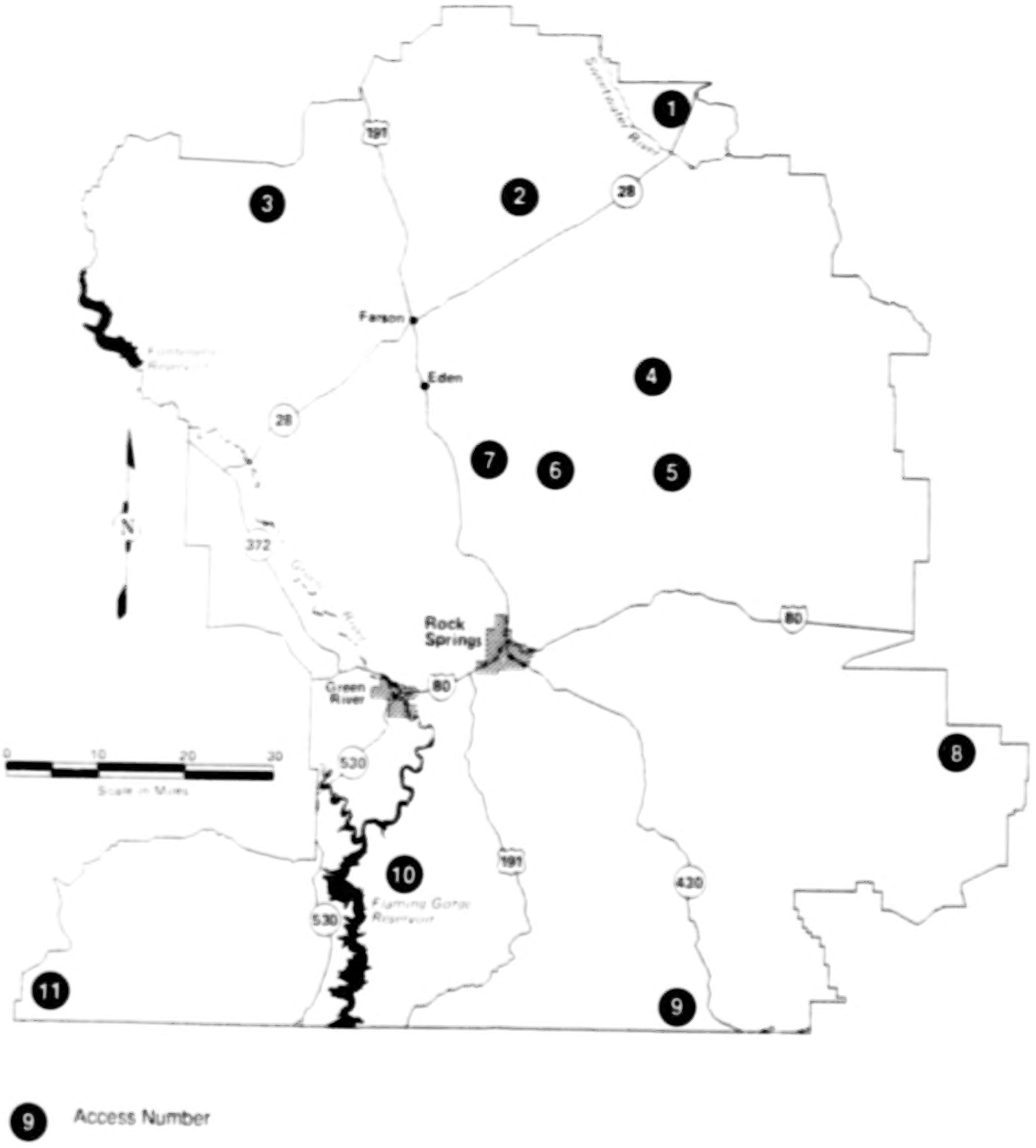


- ●●● Recommended for Retention
- ●●● Recommended for Addition
- ∘∘∘ Recommended for Revocation

Map 11

Public Water Reserves

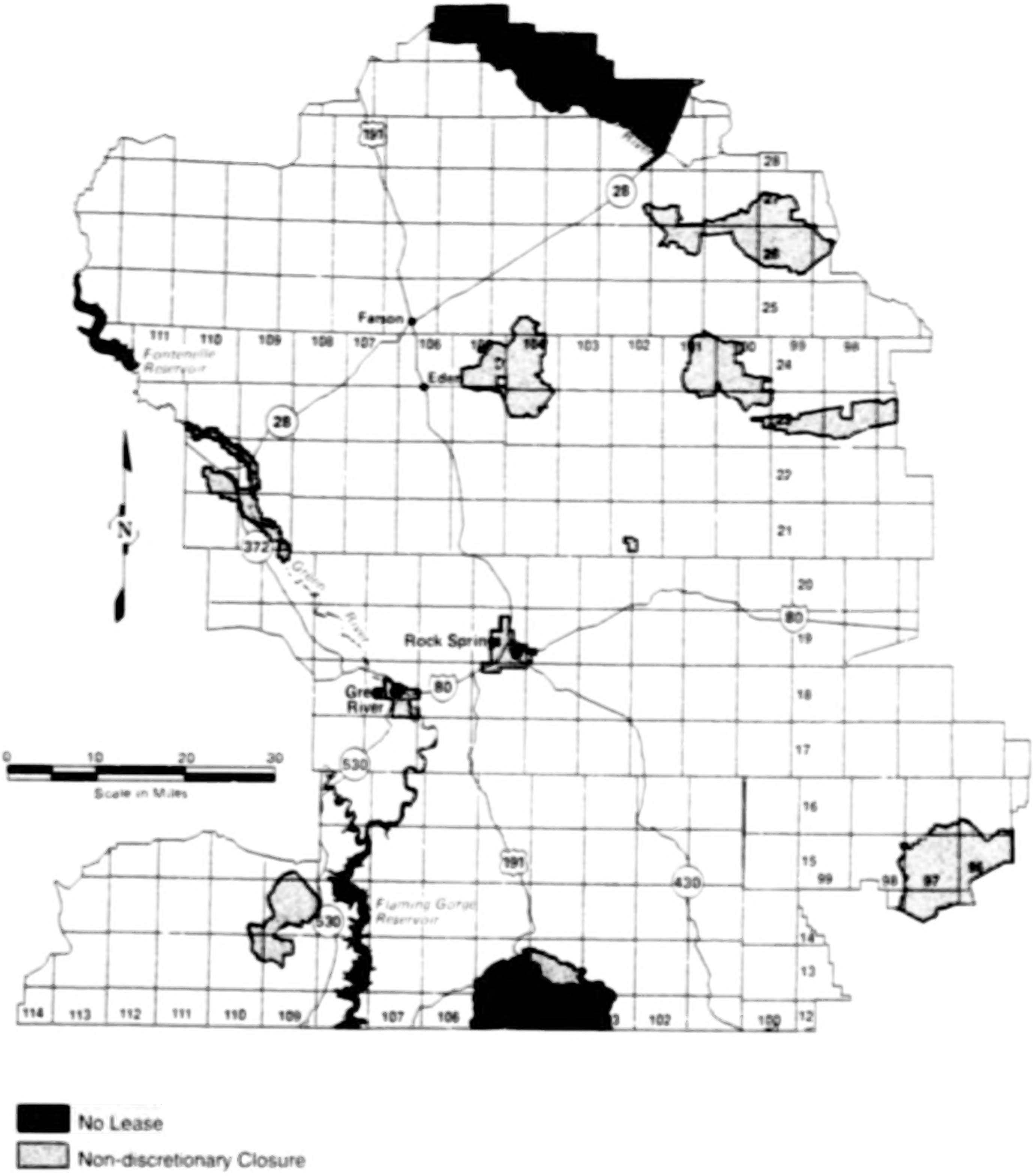
Green River RMP



Map 12

Road Access Needs

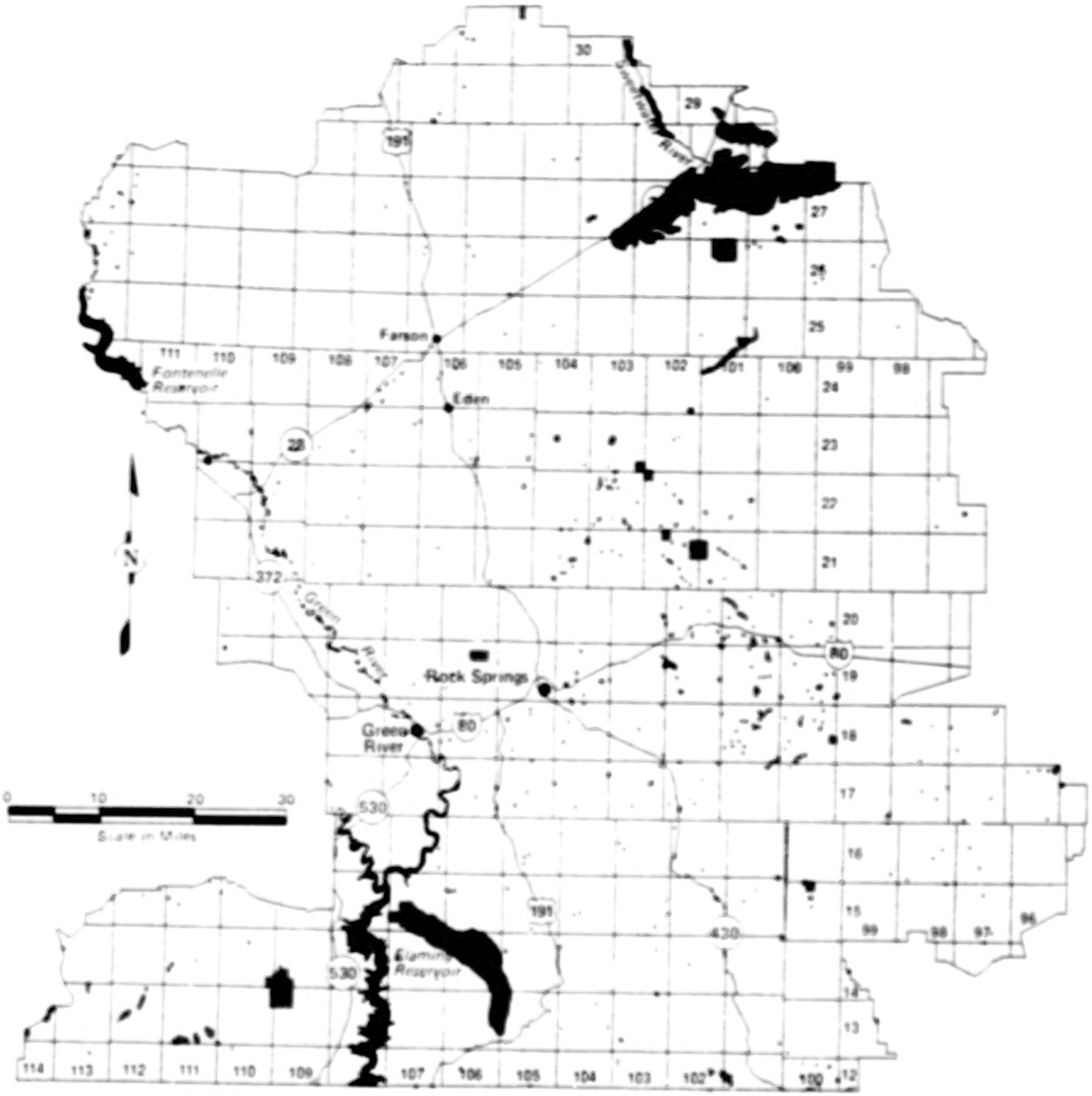
Green River RMP



Map 13

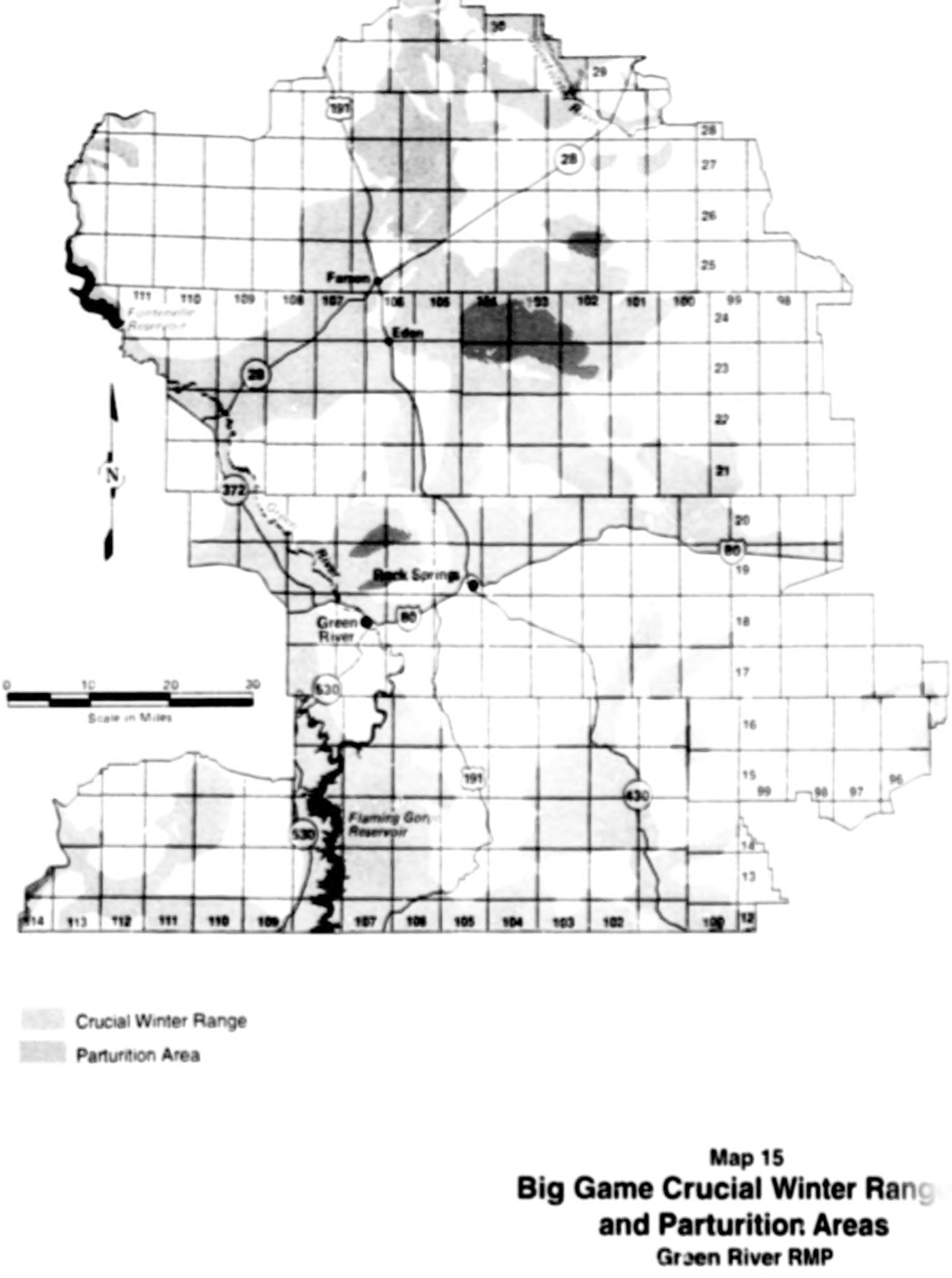
No Lease Areas

Green River RMP



■ No Surface Occupancy Areas

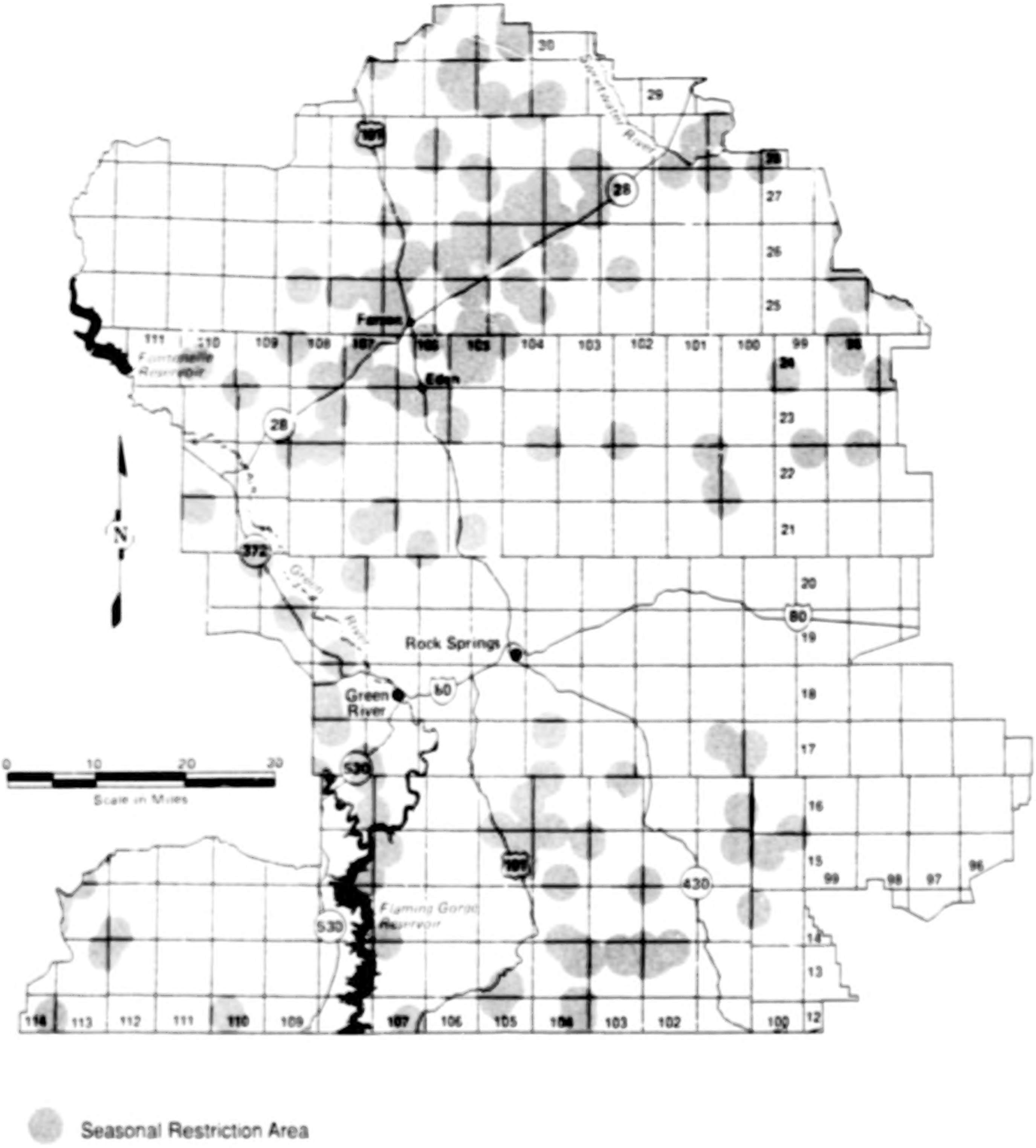
Map 14
No Surface Occupancy Areas
Green River RMP



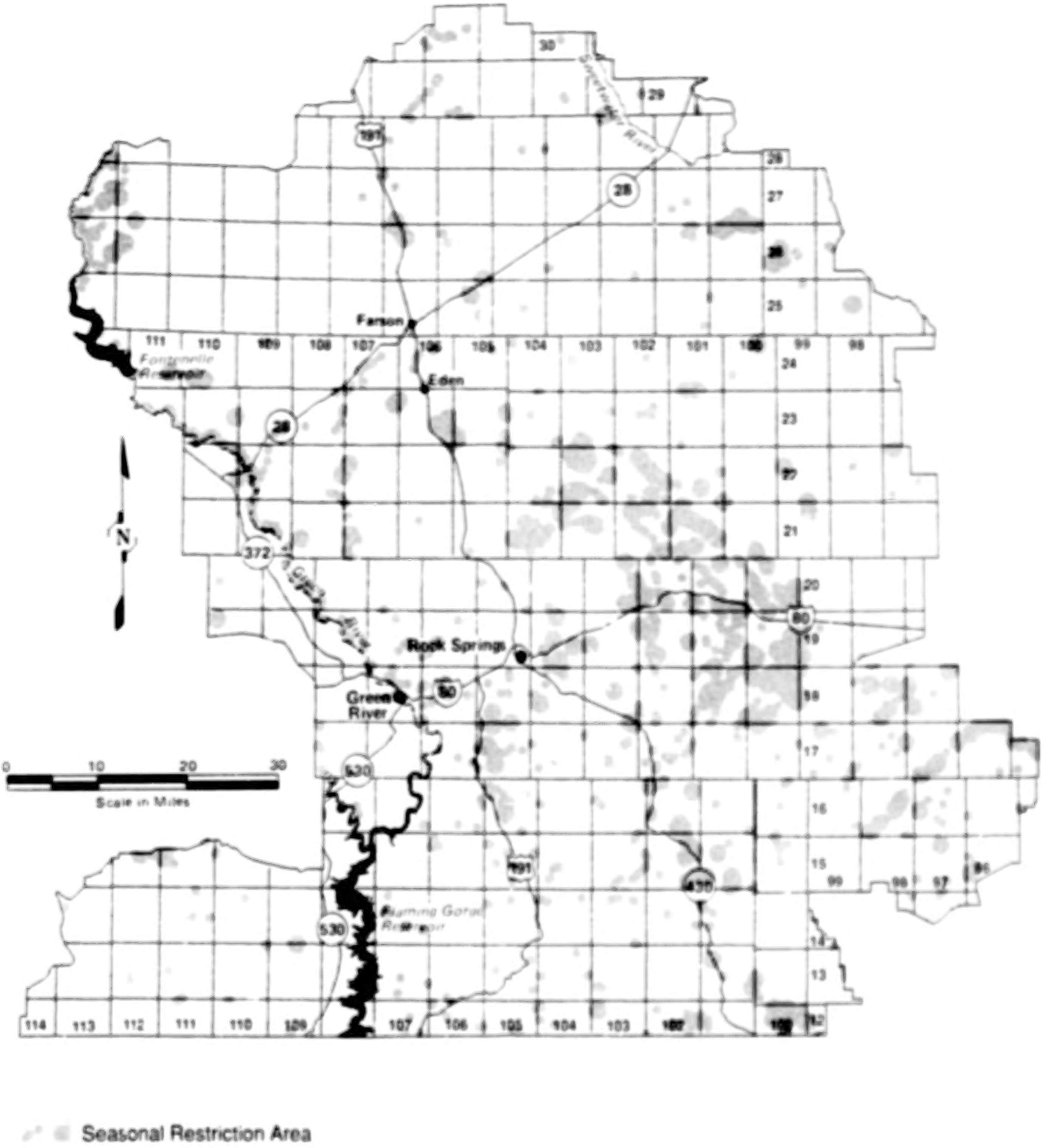
Map 15

Big Game Crucial Winter Ranges and Parturition Areas

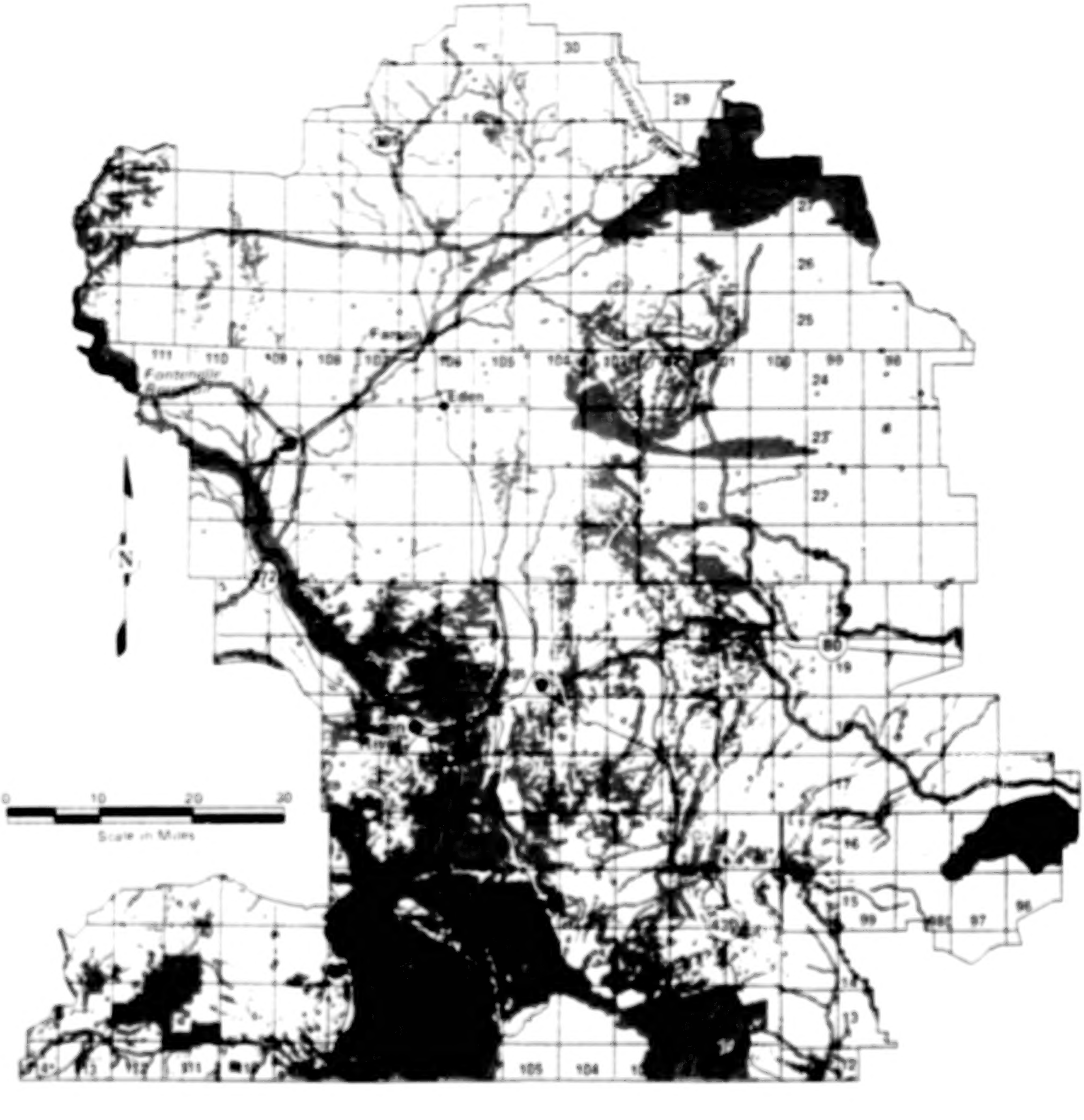
Green River RMP



Map 16
Sage Grouse
Seasonal Restriction Areas
Green River RMP



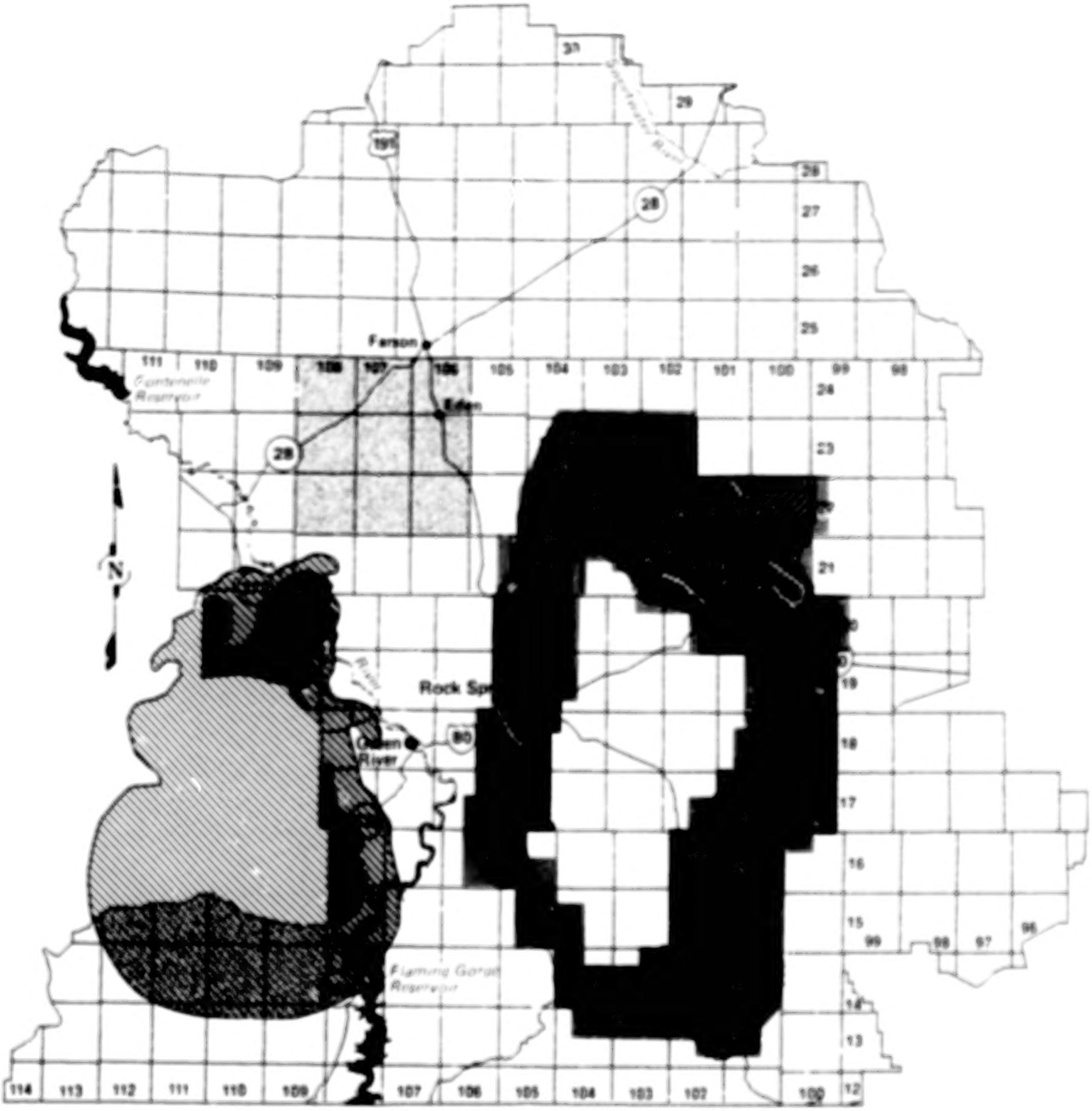
Map 17
Raptor Seasonal Restriction Areas
Green River RMP



Map 18

Lease with Controlled Surface Use Stipulations

Green River RMP

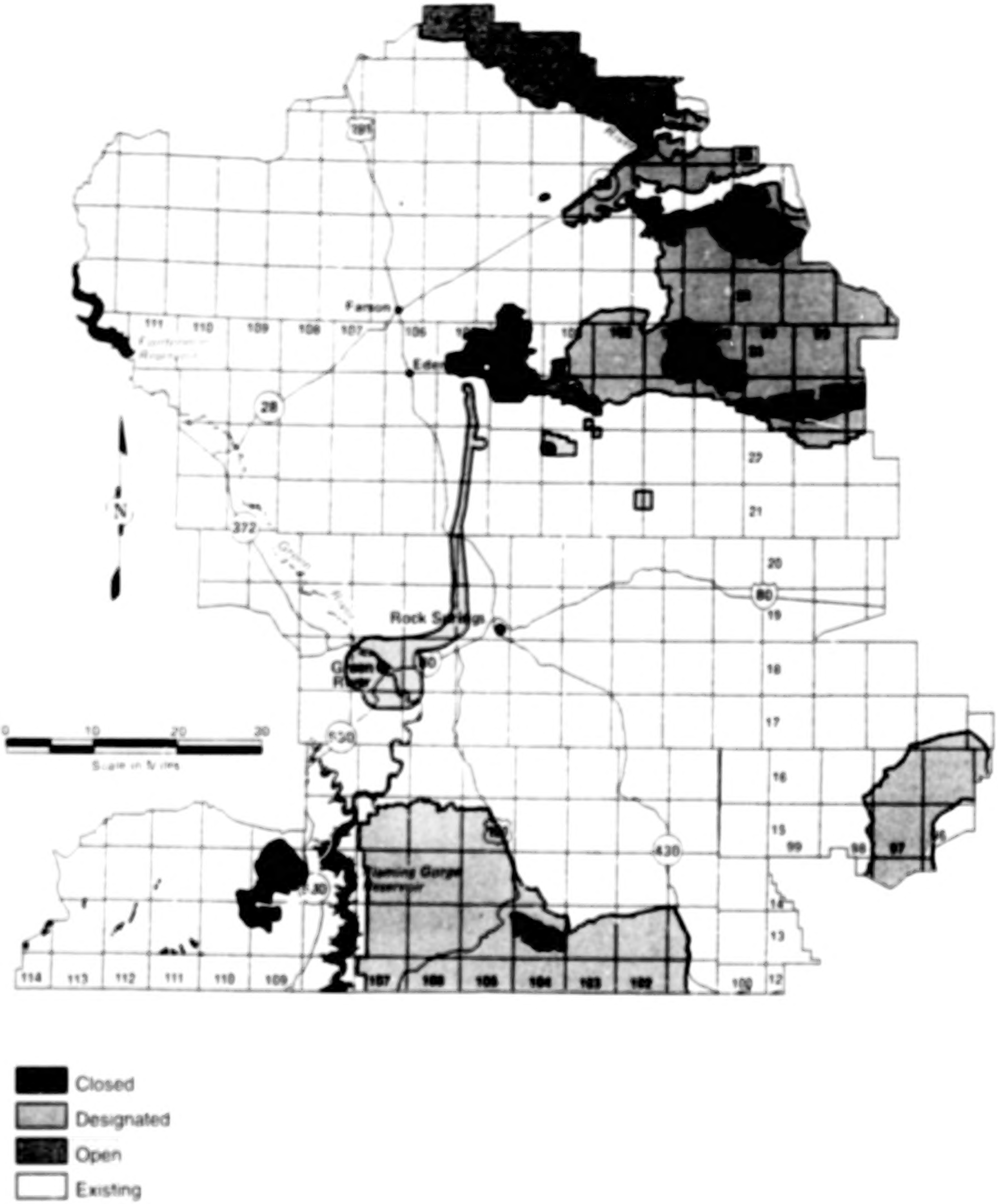


- ▨ Known Recoverable Coal Resource Area
- ▧ Known Sodium Lease Area
- ■ Coal Occurrence and Development Potential
- ■ High Sodium Development Potential
- ▒ Moderate Sodium Development Potential
- ☐ Low Sodium Development Potential
- ▓ Brine Potential Development Area

Map 19

Coal / Sodium Potential

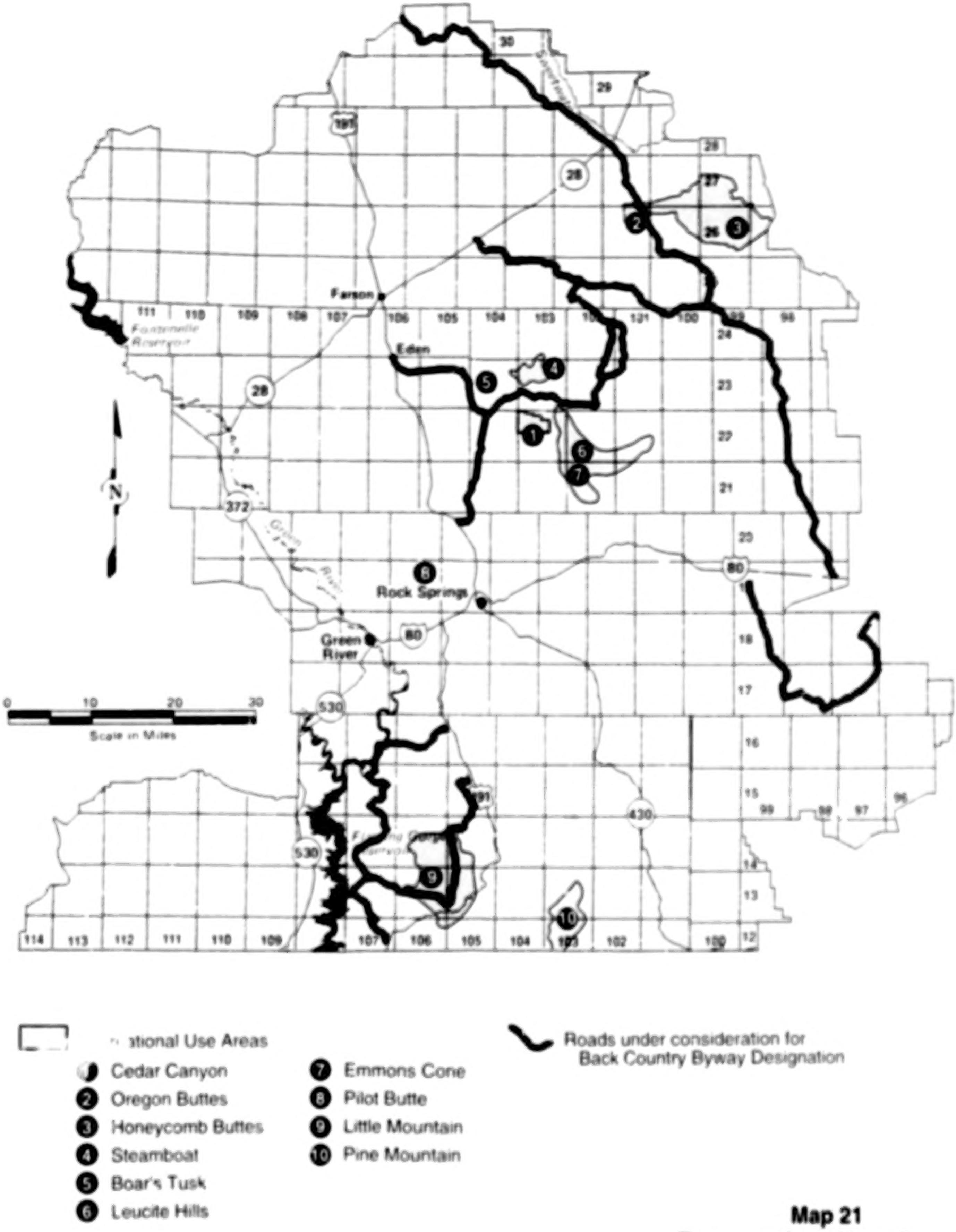
Green River RMP



Map 20

Off-Road Vehicle Designations

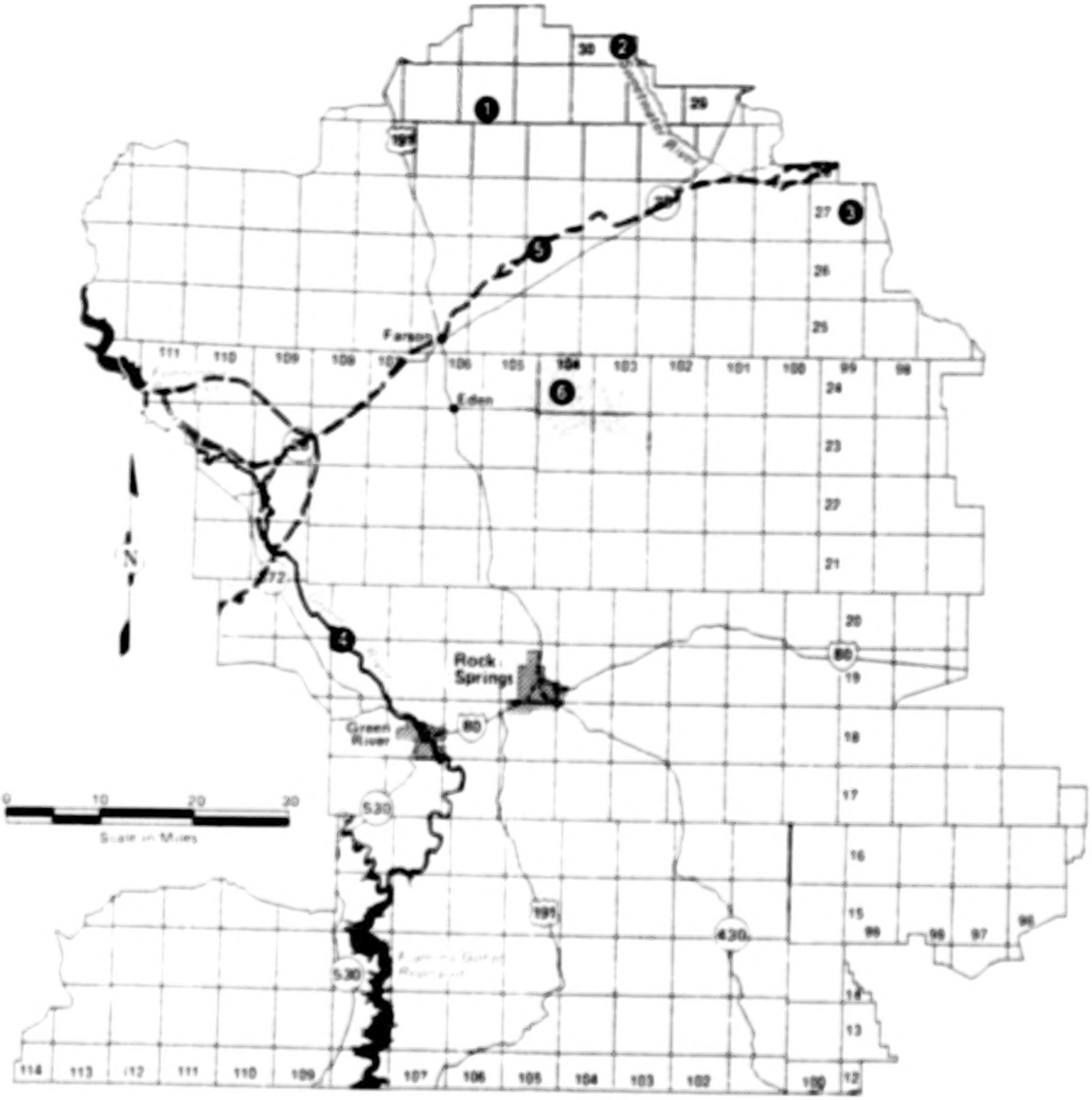
Green River RMP



Map 21

Recreation Use Areas

Green River RMP



❶ Wind River Front

❷ Wyoming Continental Divide Snowmobile Trail

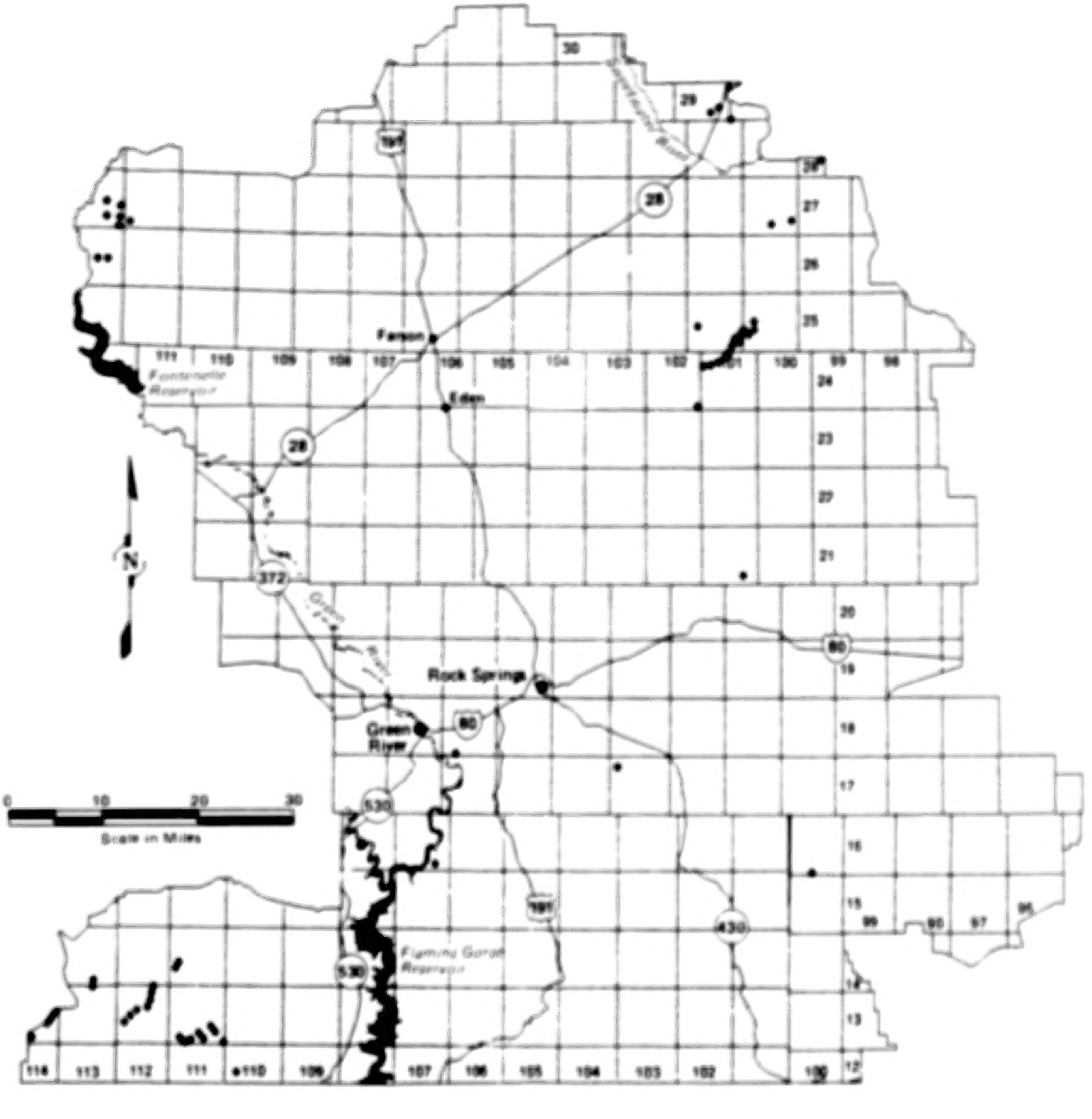
❸ Continental Divide National Scenic Trail

❹ Green River

❺ Oregon-Mormon Pioneer-California-
Pony Express National Historic Trails

❻ Greater Sand Dunes

Map 22
Special Recreation Management Areas
Green River RMP

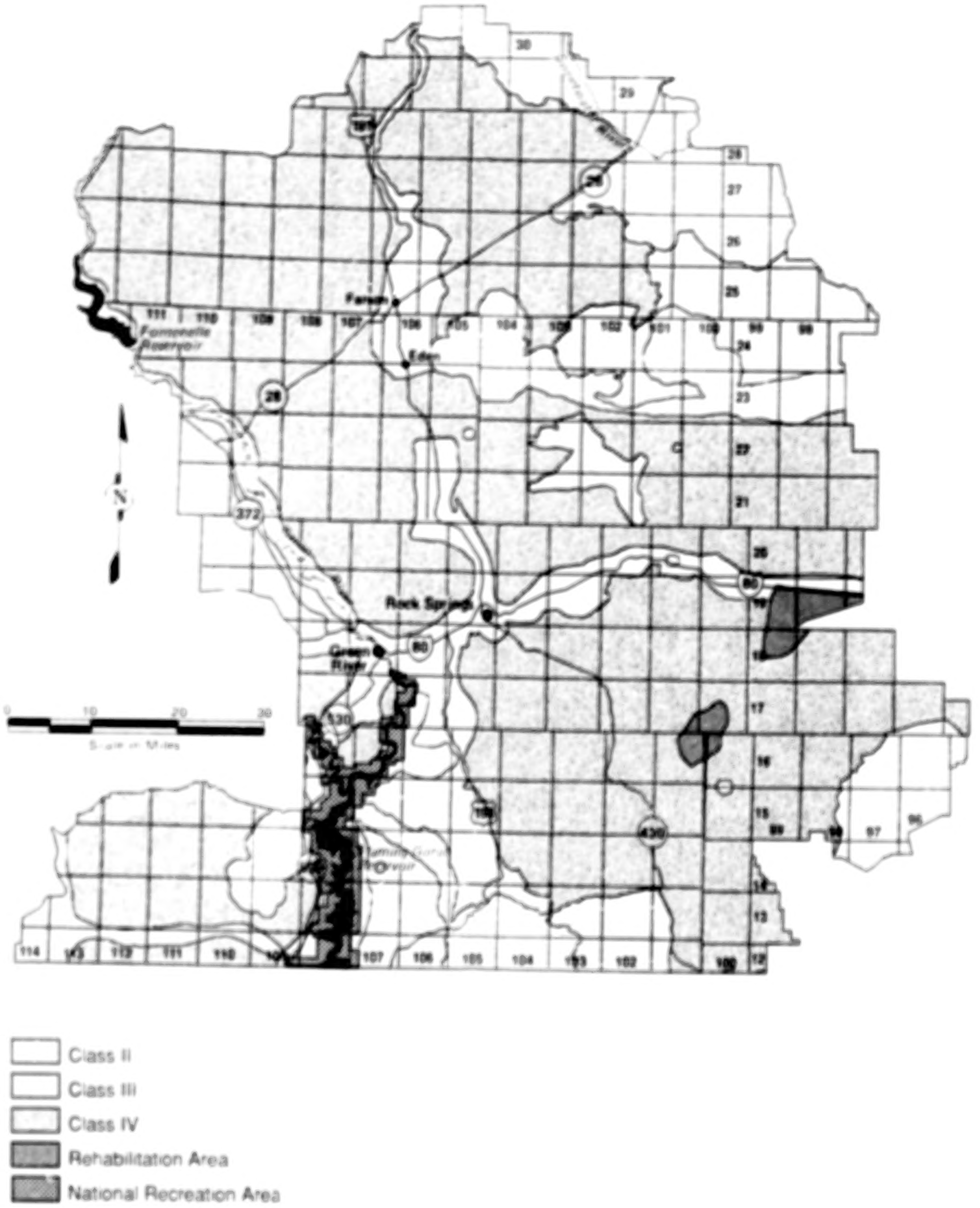


Map 23

Special Status Plant Species

Green River RMP

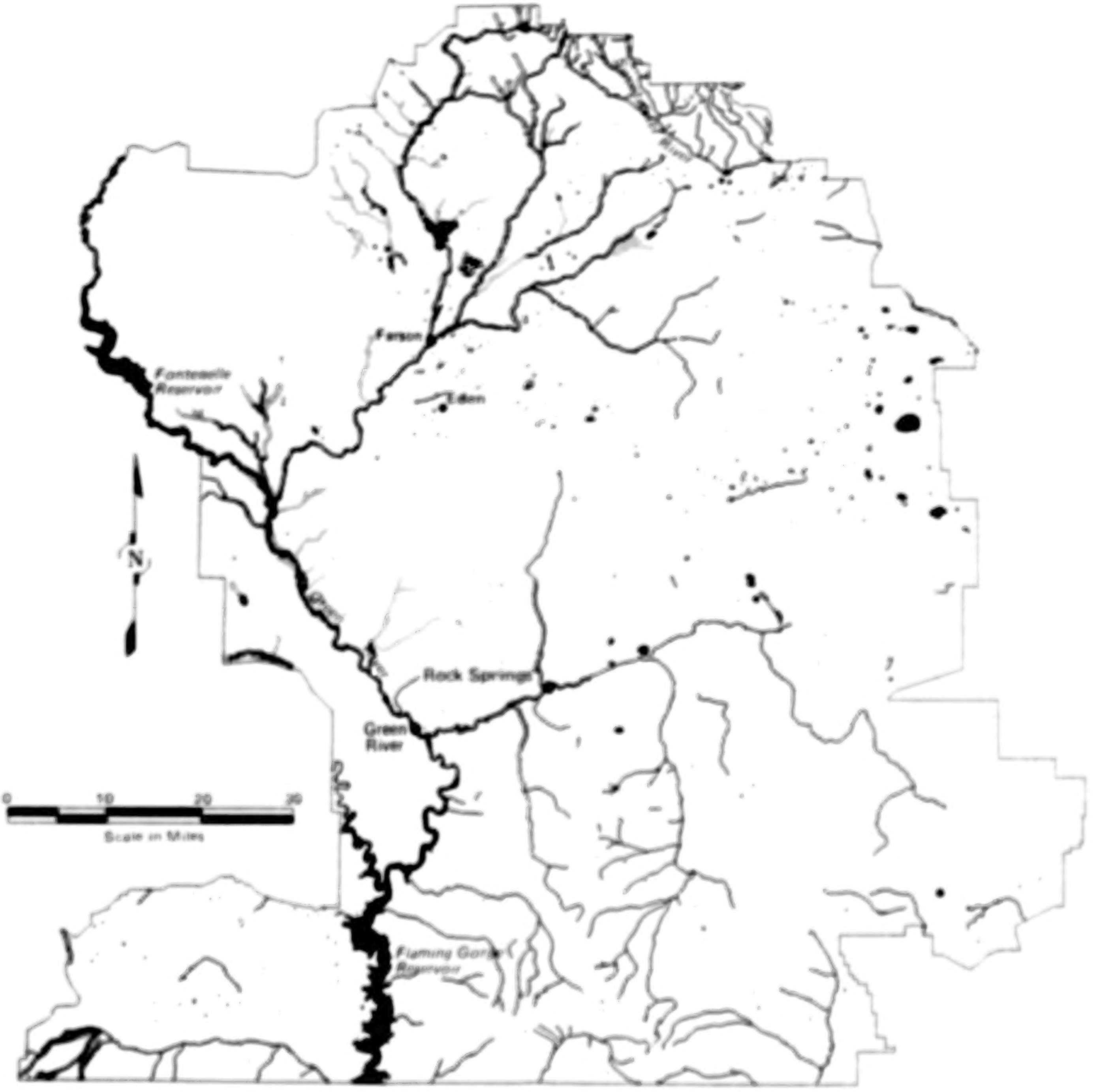
105



Map 24

Visual Resource Management

Green River RMP



Streams and Lakes

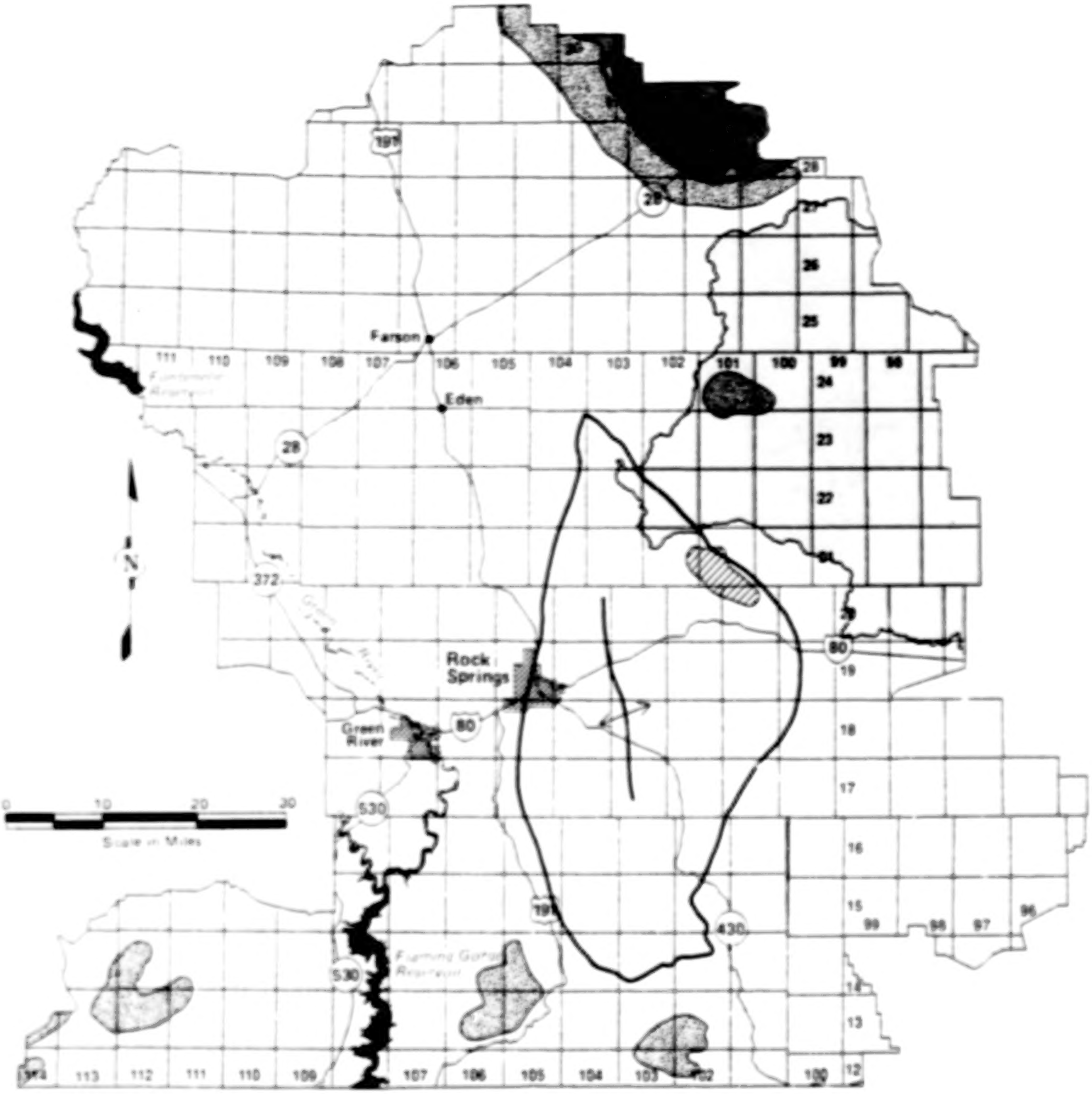
Floodplains

Note: Floodplain data is incomplete

Map 25

Waters and Floodplains

Green River RMP



☐ Green River Watershed

■ Sweetwater River Watershed

☐ Great Divide Basin Watershed

▨ Superior Recharge Area

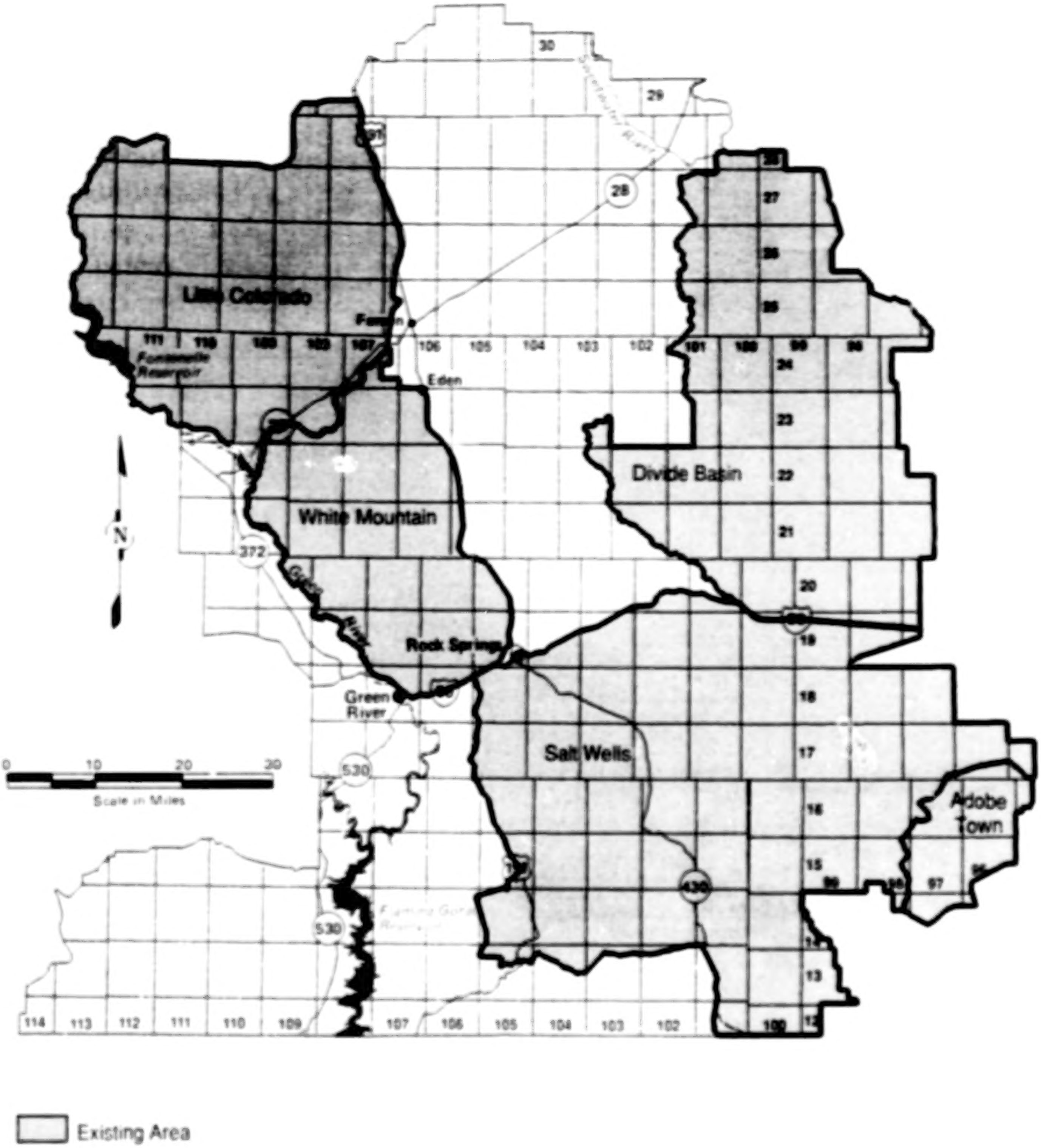
░ Other Recharge Areas

— Rock Springs Uplift

Map 26

Areas of Hydrologic Concern

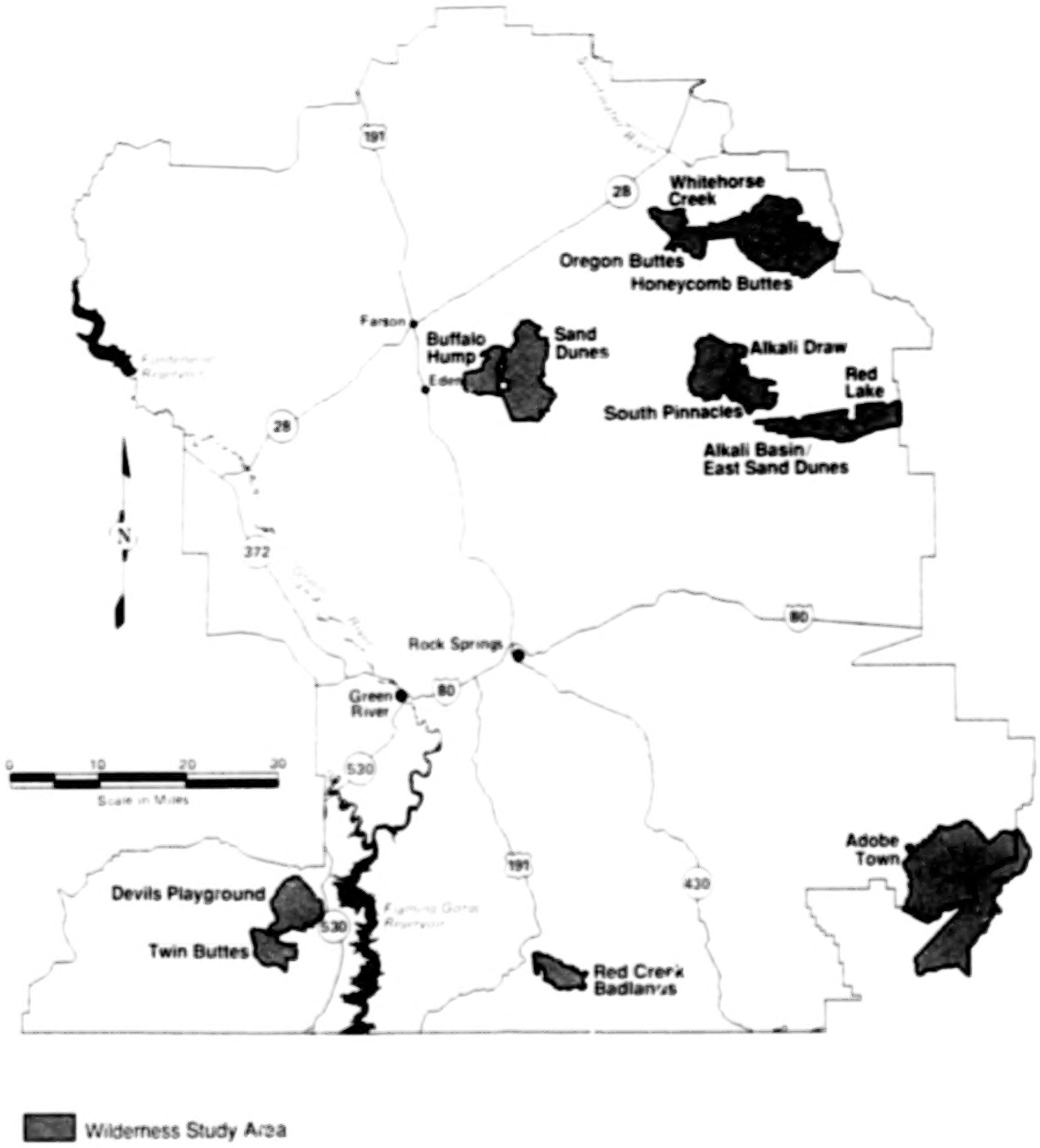
Green River RMP



Map 27

Wild Horse Herd Management Areas (Established 1971)

Green River RMP



Map 28

Wilderness Study Areas

Green River RMP

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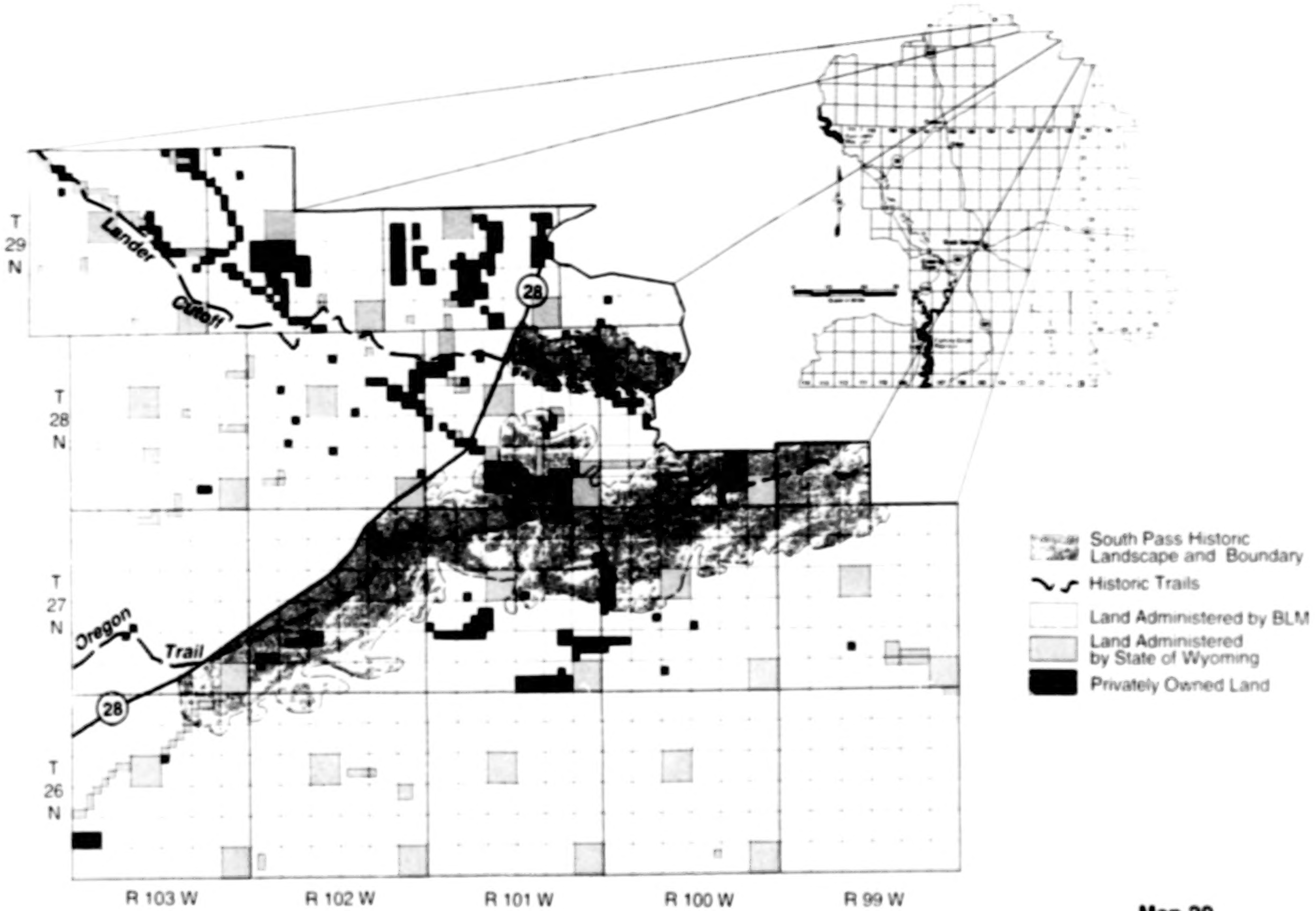
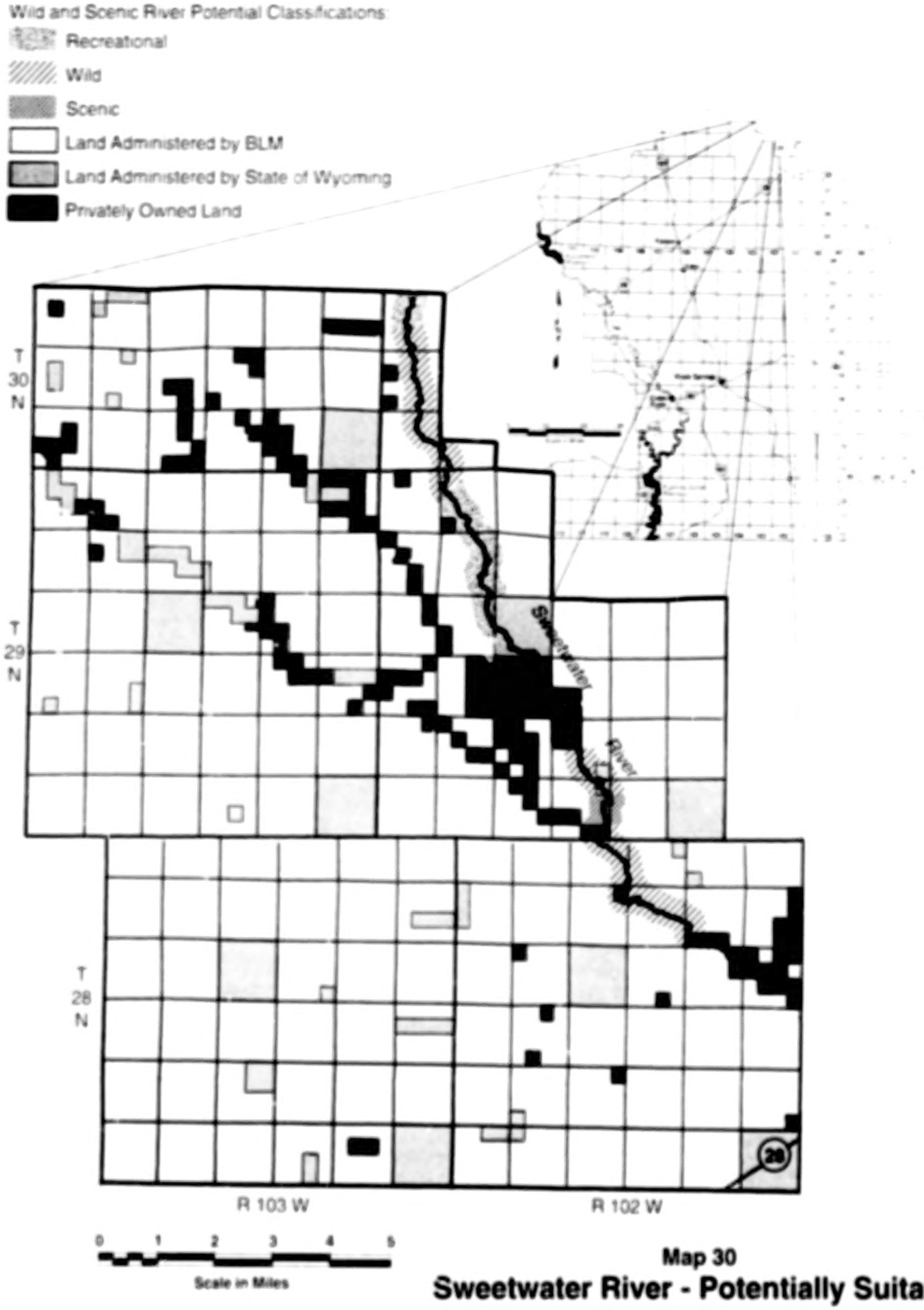


Note: Only Federal surface acres are included in the proposed landscape

Map 29

South Pass Historic Landscape

Green River RMP



Map 30

Sweetwater River - Potentially Suitable for Wild and Scenic River Consideration

Green River RMP

APPENDIX 1

ACEC CRITERIA

As part of the process for developing the Green River Resource Management Plan, BLM planning team members reviewed all BLM-administered public lands in the planning area to determine if any areas should be considered for designation as Areas of Critical Environmental Concern (ACEC) or if any existing ACEC designations should be modified or terminated. Only BLM-administered public lands (i.e., public land "surface") can be considered for ACEC designation.

To be eligible for designation as an ACEC, an area must meet the relevance and importance criteria described in 43 CFR 1610.7-2 and BLM Manual 1613.

Relevance and Importance are defined as follows:

(1) Relevance. There shall be present a significant historic, cultural, or scenic value; a fish or wildlife resource or other natural system or process; or natural hazard.

(2) Importance. The above described value, resource, system, process, or hazard shall have substantial significance and values. This generally requires qualities of more than local significance and special worth, consequence, meaning, distinctiveness, or cause for concern. A natural hazard can be important if it is a significant threat to life or property.

An area meets the "relevance" criterion if it contains one or more of the following:

1. A significant historic, cultural, or scenic value (including but not limited to rare or sensitive archeological resources and religious or cultural resources important to Native Americans).
2. A fish and wildlife resource (including but not limited to habitat for endangered, sensitive, or threatened species, or habitat essential for maintaining species diversity).
3. A natural process or system (including but not limited to endangered, nonsensitive, or threatened plant species, rare, endemic, or relic plants or plant communities which are terrestrial, aquatic, or riparian, or rare geological features).
4. Natural hazards (including but not limited to areas of avalanche, dangerous flooding, landslides, unstable soils, seismic activity, or dangerous cliffs). A hazard caused by human action may meet the relevance criteria if it is determined through the resource management planning process that it has become part of a natural process.

An area meets the "importance" criterion, if it further meets one or more of the following:

1. Has more than locally significant qualities which give it special worth, consequence, meaning, distinctiveness, or cause for concern, especially compared to any similar resource.
2. Has qualities or circumstances that make it fragile, sensitive, rare, irreplaceable, exemplary, unique, endangered, threatened, or vulnerable to adverse change.
3. Has been recognized as warranting protection in order to satisfy national priority concerns or to carry out the mandates of FLPMA.
4. Has qualities which warrant highlighting in order to satisfy public or management concerns about safety and public welfare.
5. Poses a significant threat to human life and safety or to property.

Table A1-1 shows the areas that were identified in the review and the BLM relevance and importance determinations that were made.

The Green River RMP Interdisciplinary Team identified seven existing ACECs, potential expansions to three of the existing ACECs, and eleven potential new ACECs, to be addressed during the Green River RMP planning effort.

Of the 21 areas and expansions reviewed, the BLM-administered lands on four areas were found to not meet the criteria and were dropped from further consideration. Identification was deferred on one area, until a more complete review could be conducted. The BLM-administered lands on the seven existing ACECs were found to meet the criteria and were retained. Based on the criteria, expansions were recommended for two of those. Three of the 11 potential new ACECs were also found to meet the criteria and were recommended in the Proposed Plan of the Final EIS. One of the three proposed ACECs includes the four candidate plant areas recommended in the Draft EIS.

TABLE A1-1
EVALUATION OF ACEC RELEVANCE AND IMPORTANCE CRITERIA

EXISTING OR PROPOSED ACECs	RELEVANCE CRITERIA (resources)	IMPORTANCE CRITERIA	RECOMMENDED	COMMENTS
BIG SANDY RIVER (Proposed 1 mile)	Criterion 1	no	no	Meets relevance criteria for historic values. The area did not meet the importance criteria.
CEDAR CANYON (Existing)	Criteria 1,2,3	Criteria 1,2,3,	yes	Meets the relevance and importance criteria for cultural, raptor, and wildlife values, as identified when originally designated an ACEC. The ACEC designation should be retained.
GREATER RED CREEK (Existing and proposed expansion, formerly Tri-State Monument)	Criteria 1,2,3,4	Criteria 1,2,3	yes	Meets the relevance and importance criteria for unstable fragile soils, unique ecological features, watershed and cultural values, and sensitive species of regional, national, and international importance. The values of the existing Red Creek ACEC remain the same as identified when Red Creek was originally designated an ACEC. The ACEC designation should be retained and should be expanded to include the Sage Creek and Currant Creek drainages.
GREATER SAND DUNES (Existing)	Criteria 1,2,3	Criteria 1,2,3,4	yes	Meets the relevance and importance criteria for outstanding geologic features, prehistoric and historic values of national significance, and recreation values of regional/national importance as identified when originally designated an ACEC. The ACEC designation should be retained.
KNOWN SODIUM LEASING AREA (Proposed)	deferred	deferred	deferred	Public comment on the RMP Draft EIS recommended consideration of the KSLA for ACEC designation due to an outstanding mineral of regional/national importance. However, the potential for ACEC designation should consider the entire KSLA as a whole and most of the area is within the Kemmerer Resource Area. This area would be deferred for special study and analyzed separately from this document.
MONUMENT VALLEY (Proposed)	deferred	deferred	deferred	Potentially outstanding geologic features, prehistoric and historic values of national significance, recreation values. Further information would be obtained on the actual values present and their relevance and importance.

TABLE A1-1 (continued)
EVALUATION OF ACEC RELEVANCE AND IMPORTANCE CRITERIA

EXISTING OR PROPOSED ACECs	RELEVANCE CRITERIA (resources)	IMPORTANCE CRITERIA	RECOMMENDED	COMMENTS
NATURAL CORRALS (Existing)	Criteria 1,3	Criteria 1,2	yes	Meets the relevance and importance criteria for unique volcanic monoliths, prehistoric values of national significance, and outstanding recreation opportunities as identified when originally designated an ACEC. The ACEC designation should be retained.
NATURAL CORRALS EXPANSION (Proposed)	no	no	no	Public comment requested expansion of the ACEC. However, the highest value resources were determined to be found within the existing ACEC boundary, and the expansion area did not meet relevance and importance criteria. Also, much of the area identified for expansion is on private land and not under administrative jurisdiction of the BLM.
NORTH AND SOUTH TABLE MOUNTAINS (Proposed)	Criteria 1,3	Criteria 1,2	no	The values in this area do not need special emphasis to be effectively managed.
OREGON BUTTES (Existing)	Criteria 1,3	Criteria 1,2	yes	Meets the relevance and importance criteria for historic values and geologic landmark of national significance as identified when originally designated an ACEC. The ACEC designation should be retained.
PINE SPRINGS (Existing)	Criterion 1	Criteria 1,2	yes	Meets the relevance and importance criteria for cultural values of national significance as identified when originally designated an ACEC. The ACEC designation should be retained.
PINE SPRINGS EXPANSION (Proposed)	Criterion 1	Criteria 1,2	yes	Meets the relevance and importance criteria for cultural values of national significance. The ACEC designation for Pine Springs should be expanded to include this area.
PLAYA LAKES AREAS (Proposed)	Criterion 1	no	no	The area did not have more than local significance and did not meet the importance criteria. The values in this area do not need special emphasis to be effectively managed.

TABLE A1-1 (continued)
EVALUATION OF ACEC RELEVANCE AND IMPORTANCE CRITERIA

EXISTING OR PROPOSED ACECs	RELEVANCE CRITERIA (resources)	IMPORTANCE CRITERIA	RECOMMENDED	COMMENTS
RED DESERT WATERSHED (Proposed)	Criteria 1,3	no	no	The area did not meet the importance criteria. Where values need special management emphasis, this has been provided. However, as a unit, the area does not need special emphasis to be effectively managed.
RIPARIAN AREAS (Proposed)	Criteria 2,3	Criteria 2,3	no	The values in these areas already receive special management emphasis through various BLM programs, and the ACEC designation is unnecessary.
SOUTH PASS HISTORIC LANDSCAPE (Proposed)	Criterion 1	Criteria 1,2,3	yes	Meets the relevance and importance criteria for historic and scenic values of national significance, and for outstanding geographic features. The values in this area need special emphasis to be effectively managed.
SPECIAL STATUS (CANDIDATE) PLAN SPECIES (Proposed) *Arabis pusilla* *Astragalus proimanthus* *Descurainia torulosa* *Thelesperma pubescens*	Criterion 3	Criteria 1,2,3	yes	Meets the relevance criteria for natural processes or systems and importance criteria of more than local significant qualities, fragile, sensitive, rare and vulnerable to adverse change, and warrants protection to satisfy national priority concerns and carry out the mandates of FLPMA. The values in this area need special emphasis to be effectively managed. *Arabis pusilla* is proposed for listing as a Threatened and Endangered species.
STEAMBOAT MOUNTAIN (Proposed)	Criteria 1,2,3	Criteria 1,2	yes	Meets the relevance and importance criteria for wildlife and cultural values of national significance. Unique habitat features found nowhere else in the Resource Area. The values in this area need special emphasis to be effectively managed.
WHITE MOUNTAIN PETROGLYPHS (Existing)	Criterion 1	Criteria 1,2	yes	Meets the relevance and importance criterion for cultural values of national significance as identified when the area was originally designated an ACEC. The ACEC designation should be retained.

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APPENDIX 2

WYOMING BUREAU OF LAND MANAGEMENT (BLM) MITIGATION GUIDELINES FOR SURFACE DISTURBING AND DISRUPTIVE ACTIVITIES

INTRODUCTION

These guidelines are primarily for the purpose of attaining statewide consistency in how requirements are determined for avoiding and mitigating environmental impacts and resource and land use conflicts. Consistency in this sense does not mean that identical requirements would be applied for all similar types of land use activities that may cause similar types of impacts. Nor does it mean that the requirements or guidelines for a single land use activity would be identical in all areas.

There are two ways the mitigation guidelines are used in the resource management plan (RMP) and environmental impact statement (EIS) process: (1) as part of the planning criteria in developing the RMP alternatives, and (2) in the analytical processes of both developing the alternatives and analyzing the impacts of the alternatives. In the first case, an assumption is made that any one or more of the mitigations will be appropriately included as conditions of relevant actions being proposed or considered in each alternative. In the second case, the mitigations are used (1) to develop a baseline for measuring and comparing impacts among the alternatives; (2) to identify other actions and alternatives that should be considered, and (3) to help determine whether more stringent or less stringent mitigations should be considered.

The EIS for the RMP does not decide or dictate the exact wording or inclusion of these guidelines. Rather, the guidelines are used in the RMP EIS process as a tool to help develop the RMP alternatives and to provide a baseline for comparative impact analysis in arriving at RMP decisions. These guidelines will be used in the same manner in analyzing activity plans and other site-specific proposals. These guidelines and their wording are matters of policy. As such, specific wording is subject to change primarily through administrative review, not through the RMP EIS process. Any further changes that may be made in the continuing refinement of these guidelines and any development of program-specific standard stipulations will be handled in another forum, including appropriate public involvement and input.

PURPOSE

The purposes of the "Wyoming BLM Mitigation Guidelines" are (1) to reserve, for the BLM, the right to modify the operations of all surface and other human presence disturbance activities as part of the statutory requirements for environmental protection, and (2) to inform a potential lessee, permittee, or operator of the requirements that must be met when using BLM-administered public lands. These guidelines have been written in a format that will allow for (1) their direct use as stipulations, and (2) the addition of specific or specialized mitigation following the submission of a detailed plan of development or other project proposal, and an environmental analysis.

Those resource activities or programs currently without a standardized set of permit or operation stipulations can use the mitigation guidelines as stipulations or as conditions of approval, or as a baseline for developing specific stipulations for a given activity or program.

Because use of the mitigation guidelines was integrated into the RMP EIS process and will be integrated into the site-specific environmental analysis process, the application of stipulations or mitigation requirements derived through the guidelines will provide more consistency with planning decisions and plan implementation than has occurred in the past. Application of the mitigation guidelines to all surface and other human presence disturbance activities concerning BLM-administered public lands and resources will provide more uniformity in mitigation than has occurred in the past.

MITIGATION GUIDELINES

1. Surface Disturbance Mitigation Guideline

Surface disturbance will be prohibited in any of the following areas or conditions. Exception, waiver, or modification of this limitation may be approved in writing, including documented supporting analysis, by the Authorized Officer.

a. Slopes in excess of 25 percent.

b. Within important scenic areas (Class I and II Visual Resource Management Areas).

c. Within 500 feet of surface water and/or riparian areas.

d. Within either one-quarter mile or the visual horizon (whichever is closer) of historic trails.

e. Construction with frozen material or during periods when the soil material is saturated or when watershed damage is likely to occur.

Guidance

The intent of the **SURFACE DISTURBANCE MITIGATION GUIDELINE** is to inform interested parties (potential lessees, permittees, or operators) that when one or more of the five (1a through 1e) conditions exist, surface-disturbing activities will be prohibited unless or until a permittee or his designated representative and the surface management agency (SMA) arrive at an acceptable plan for mitigation of anticipated impacts. This negotiation will occur prior to development.

Specific criteria (e.g., 500 feet from water) have been established based upon the best information available. However, such items as geographical areas and seasons must be delineated at the field level.

Exception, waiver, or modification of requirements developed from this guideline must be based upon environmental analysis of proposals (e.g., activity plans, plans of development, plans of operation, applications for permit to drill) and, if necessary, must allow for other mitigation to be applied on a site-specific basis.

2. Wildlife Mitigation Guideline

a. To protect important big game winter habitat, activities or surface use will not be allowed from November 15 to April 30 within certain areas encompassed by the authorization. The same criteria apply to defined big game birthing areas from May 1 to June 30.

Application of this limitation to operation and maintenance of a developed project must be based on environmental analysis of the operational or production aspects.

Exception, waiver, or modification of this limitation in any year may be approved in writing, including documented supporting analysis, by the Authorized Officer.

b. To protect important raptor and/or sage and sharp-tailed grouse nesting habitat, activities or surface use will not be allowed from February 1 to July 31 within certain areas encompassed by the authorization. The same criteria apply to defined raptor and game bird winter concentration areas from November 15 to April 30.

Application of this limitation to operation and maintenance of a developed project must be based on environmental analysis of the operational or production aspects.

Exception, waiver, or modification of this limitation in any year may be approved in writing, including documented supporting analysis, by the Authorized Officer.

c. No activities or surface use will be allowed on that portion of the authorization area identified within (legal description) for the purpose of protecting (e.g., sage/sharp-tailed grouse breeding grounds, and/or other species/activities) habitat.

Exception, waiver, or modification of this limitation in any year may be approved in writing, including documented supporting analysis, by the Authorized Officer.

d. Portions of the authorized use area legally described as (legal description), are known or suspected to be essential habitat for (name) which is a threatened or endangered species. Prior to conducting any onsite activities, the lessee/permittee will be required to conduct inventories or studies in accordance with BLM and U.S. Fish and Wildlife Service guidelines to verify the presence or absence of this species. In the event that (name) occurrence is identified, the lessee/permittee will be required to modify operational plans to include the protection requirements of this species and its habitat (e.g., seasonal use restrictions, occupancy limitations, facility design modifications).

Guidance

The WILDLIFE MITIGATION GUIDELINE is intended to provide two basic types of protection: seasonal restriction (2a and 2b) and prohibition of activities or surface use (2c). Item 2d is specific to situations involving threatened or endangered species. Legal descriptions will ultimately be required and should be measurable and legally definable. There are no minimum subdivision requirements at this time. The area delineated can and should be defined as necessary, based upon current biological data, prior to the time of processing an application and issuing the use authorization. The legal description must eventually become a part of the condition for approval of the permit, plan of development, and/or other use authorization.

The seasonal restriction section identifies three example groups of species and delineates three similar time frame restrictions. The big game species including elk, moose, deer, antelope, and bighorn sheep, all require protection of crucial winter range between November 15 and April 30. Elk and bighorn sheep also require protection from disturbance from May 1 to June 30, when they typically occupy distinct calving and lambing areas. Raptors include eagles, accipiters, falcons (peregrine, prairie, and merlin), buteos (ferruginous and Swainson's hawks), osprey, and burrowing owls. The raptors and sage and sharp-tailed grouse require nesting protection between February 1 and July 31. The same birds often require protection from disturbance from November 15 through April 30 while they occupy winter concentration areas.

Item 2c (the prohibition of activity or surface use) is intended for protection of specific wildlife habitat areas or values within the use area that cannot be protected by using seasonal restrictions. These areas or values must be factors that limit life-cycle activities (e.g., sage grouse strutting grounds, known threatened and endangered species habitat).

Exception, waiver, or modification of requirements developed from this guideline must be based upon environmental analysis of proposals (e.g., activity plans, plans of development, plans of operation, applications for permit to drill) and, if necessary, must allow for other mitigation to be applied on a site-specific basis.

3. Cultural Resource Mitigation Guideline

When a proposed discretionary land use has potential for affecting the characteristics which qualify a cultural property for the National Register of Historic Places (National Register), mitigation will be considered. In accordance with Section 106 of the Historic Preservation Act, procedures specified in 36 CFR 800 will be used in consultation with the Wyoming State Historic Preservation Officer and the Advisory Council on Historic Preservation in arriving at determinations regarding the need and type of mitigation to be required.

Guidance

The preferred strategy for treating potential adverse effects on cultural properties is "avoidance." If avoidance involves project relocation, the new project area may also require cultural resource inventory. If avoidance is imprudent or unfeasible, appropriate mitigation may include excavation (data recovery), stabilization, monitoring, protection barriers and signs, or other physical and administrative measures.

Reports documenting results of cultural resource inventory, evaluation, and the establishment of mitigation alternatives (if necessary) shall be written according to standards contained in BLM Manuals, the cultural resource permit stipulations, and in other policy issued by the BLM. These reports must provide sufficient information for Section 106 consultation. Reports shall be reviewed for adequacy by the appropriate BLM cultural resource specialist. If cultural properties on, or eligible for, the National Register are located within these areas of potential impact and cannot be avoided, the Authorized Officer shall begin the Section 106 consultation process in accordance with the procedures contained in 36 CFR 800.

Mitigation measures shall be implemented according to the mitigation plan approved by the BLM Authorized Officer. Such plans are usually prepared by the land use applicant according to BLM specifications. Mitigation plans will be reviewed as part of Section 106 consultation for National Register eligible or listed properties. The extent and nature of recommended mitigation shall be commensurate with the significance of the cultural resource involved and the anticipated extent of damage. Reasonable costs for mitigation will be borne by the land use applicant. Mitigation must be cost effective and realistic. It must consider project requirements and limitations, input from concerned parties, and be BLM approved or BLM formulated.

Mitigation of paleontological and natural history sites will be treated on a case-by-case basis. Factors such as site significance, economics, safety, and project urgency must be taken into account when making a decision to mitigate. Authority to protect (through mitigation) such values is provided for in FLPMA, Section 102(a)(8). When avoidance is not possible, appropriate mitigation may include excavation (data recovery), stabilization, monitoring, protection barriers and signs, or other physical and administrative protection measures.

4. Special Resource Mitigation Guideline

To protect (resource value), activities or surface use will not be allowed (i.e., within a specific distance of the resource value or between date to date) in (legal description).

Application of this limitation to operation and maintenance of a developed project must be based on environmental analysis of the operational or production aspects.

Exception, waiver, or modification of this limitation in any year may be approved in writing, including documented supporting analysis, by the Authorized Officer.

Example Resource Categories (Select or identify category and specific resource value):

a. Recreation areas.

b. Special natural history or paleontological features.

c. Special management areas.

d. Sections of major rivers.

e. Prior existing rights-of-way.

f. Occupied dwellings.

g. Other (specify).

Guidance

The **SPECIAL RESOURCE MITIGATION GUIDELINE** is intended for use only in site-specific situations where one of the first three general mitigation guidelines will not adequately address the concern. The resource value, location, and specific restrictions must be clearly identified. A detailed plan addressing specific mitigation and special restrictions will be required prior to disturbance or development and will become a condition for approval of the permit, plan of development, or other use authorization.

Exception, waiver, or modification of requirements developed from this guideline must be based upon environmental analysis of proposals (e.g., activity plans, plans of development, plans of operation, applications for permit to drill) and, if necessary, must allow for other mitigation to be applied on a site-specific basis.

5. No Surface Occupancy Guideline

No Surface Occupancy will be allowed on the following described lands (legal description) because of (resource value).

Example Resource Categories (Select or identify category and specific resource value):

a. Recreation Areas (e.g., campgrounds, historic trails, national monuments).

b. Major reservoirs/dams.

c. Special management area (e.g., known threatened or endangered species habitat, areas suitable for consideration for wild and scenic rivers designation).

d. Other (specify).

Guidance

The **NO SURFACE OCCUPANCY (NSO) MITIGATION GUIDELINE** is intended for use only when other mitigation is determined insufficient to adequately protect the public interest and is the only alternative to "no development" or "no leasing." The legal description and resource value of concern must be identified and be tied to an **NSO** land use planning decision.

Waiver of, or exception(s) to, the **NSO** requirement will be subject to the same test used to initially justify its imposition. If, upon evaluation of a site-specific proposal, it is found that less restrictive mitigation would adequately protect the public interest or value of concern, then a waiver or exception to the **NSO** requirement is possible. The record must show that because conditions or uses have changed, less restrictive requirements will protect the public interest. An environmental analysis must be conducted and documented (e.g., environmental assessment, environmental impact statement, etc., as necessary) in order to provide the basis for a waiver or exception to an **NSO** planning decision. Modification of the **NSO** requirement will pertain only to refinement or correction of the location(s) to which it applied. If the waiver, exception, or modification is found to be consistent with the intent of the planning decision, it may be granted. If found inconsistent with the intent of the planning decision, a plan amendment would be required before the waiver, exception, or modification could be granted.

When considering the "no development" or "no leasing" option, a rigorous test must be met and fully documented in the record. This test must be based upon stringent standards described in the land use planning document. Since rejection of all development rights is more severe than the most restrictive mitigation requirement, the record must show that consideration was given to development subject to reasonable mitigation, including "no surface occupancy." The record must also show that other mitigation was determined to be insufficient to adequately protect the public interest. A "no development" or "no leasing" decision should not be made solely because it appears that conventional methods of development would be unfeasible, especially where an **NSO** restriction may be acceptable to a potential permittee. In such cases, the potential permittee should have the opportunity to decide whether or not to go ahead with the proposal (or accept the use authorization), recognizing that an **NSO** restriction is involved.

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APPENDIX 3

1995 COAL SCREENING PROCESS SUMMARY

INTRODUCTION

Since the Federal coal lands within the Green River Resource Area were reviewed and evaluated in 1981, there have been some changes in the Federal coal regulations and in the coal screening/planning procedures. In addition, a considerable amount of new coal resource data has been compiled that has resulted in identifying a significantly larger area and amount of Federal coal having development potential. The status of other land and resource values and uses in the coal development potential area have also changed. Thus, the 1981 coal planning results have become outdated and are unusable as a viable planning base for managing the Federal coal program in the planning area.

The purpose for conducting another review and evaluation of the coal development potential area at this time is to update the coal resource data, the coal screening results and the coal planning decisions for the planning area with new data gathered since 1981. This information and the results of the new review will be used to provide opportunities for short-term and long-term development of Federal coal in an orderly and timely manner, consistent with the Federal Coal Management Program, policies, environmental integrity, national energy needs, and related demands. Development of this RMP EIS will serve as a mode for public input to the coal screening process.

CONSULTATION AND COORDINATION

Two *Federal Register* Notices were published requesting and/or providing information on the coal screening process. On September 30, 1988 (vol. 53, no. 190, p. 38360), a call for coal and other resource information was published. No specific information was provided as a result of this notice.

On December 8, 1992 (vol. 57, no. 23, p. 58023), the Notice of Availability of the Draft EIS for the RMP was published. Fifteen comment letters regarding coal were received and printed in Appendix 14-3 of the Final EIS.

A letter with a map of the proposed coal potential area was mailed on March 7, 1990, requesting information on coal potential. Four responses were received that supported the potential area, or coal activities in general.

Unsuitability Criteria

Comments received from the U.S. Fish and Wildlife Service and the Wyoming Game and Fish Department as required under the consultation process of the coal unsuitability criteria (43 CFR 3461) are summarized as follows:

> Comments concerning Criteria 9 and 10 for Federally Listed Endangered Species Habitat and State Listed Endangered Species stated that no critical or essential habitat has been determined but habitat of essential value is located in the resource area. Habitat for specific species were indicated.
>
> Comments concerning Criteria 11 and 12 for Bald and Golden Eagle Nest Sites and Roosts stated that an active bald eagle nest is located within the Seedskadee National Refuge and that the area from Fontenelle to the City of Green River is considered important habitat.
>
> The Wyoming Game and Fish Department provided maps to help in the application of Criterion 15 (Habitat for State High-Interest Wildlife and Plants).
>
> The U.S. Fish and Wildlife Service stated that under Criterion 19, National Resource Waters, concern should be given to water quality with respect to effects on fisheries, migratory birds, and federally listed threatened or endangered species.
>
> Consultation also occurred with local Indian tribes, although no written response was received.

AREA DESCRIPTION

The area reviewed for competitive Federal coal development in the Green River Resource Area (i.e., the coal development potential area) lies within a portion of the decertified Green River-Hams Fork Coal Region of northwest Colorado and south-central/southwestern Wyoming and is shown on Map 31. The review area is underlain by an estimated 8.5 billion tons of Federal coal reserves. This coal contains an average of 10,244 British Thermal Units (BTUs) of energy per pound and an average sulfur content of 0.8 percent.

The central portion of the area has a checkerboard coal and land ownership pattern with alternating sections of Federal and non-Federal coal and lands. Map 31 shows the land and coal ownership status in this area.

In some cases, the land and coal ownership in the area is split (i.e., split estate). There are areas of state or privately-owned land surface overlying Federally-owned coal, and there are areas of Federally-owned land surface overlying state or privately-owned coal. The latter situation is addressed only to determine surface impacts and the need for surface management stipulations and mitigation requirements, should this private or state coal be developed.

Only the areas containing Federally-owned coal and those split-estate lands of Federal surface-non Federal coal, within the structural Rock Springs Uplift were reviewed and evaluated. Any consideration for possible development of Federally-owned coal outside this area will be reviewed as future demand and need dictate. Existing Federal coal leases are not appropriate for review. However, existing Federal coal leases were taken into account in the reasonably foreseeable coal development scenarios and in the impact analyses conducted for the RMP EIS. Also, development of state and privately owned coal was taken into account in the reasonably foreseeable coal development scenarios and in the impact analyses conducted for the RMP EIS.

COAL SCREENING/PLANNING PROCEDURES

The Federal Coal Management Program established four major steps to be used in the identification of Federal coal areas that are acceptable for coal development. The four steps are (1) identification of areas with Federal coal development potential; (2) application of the coal unsuitability criteria; (3) other multiple use conflicts evaluation; and (4) surface owner consultation. Application of the latter three coal screening steps, as described below, results in (1) identifying areas that are acceptable for coal development in each of these 3 steps; and (2) identifying areas that are unsuitable (Step 2), unacceptable (Step 3), and unavailable (Step 4) for coal development. Finally, all Federal coal areas that pass through the screening process are determined to be acceptable for further consideration for leasing and development. Collectively, these steps are called the "Coal Screening Process" (43 CFR 3461) and are applied in sequence to the Federal coal review area.

The following is a description of each of the steps of the coal screening process and how they were applied to the Federal coal review area.

Step 1 - Identification of Coal Development Potential

All areas of known and assumed Federal coal development potential for both surface and subsurface mining were identified using geological and economic data submitted by coal companies and interpretations of available geological data from various other sources. The remaining three screening steps were applied to the Federal coal development potential areas (both known and assumed) identified.

Step 2 - Application of Coal Unsuitability Criteria

As required by 43 CFR 3461, the 20 coal unsuitability criteria were applied to all known and assumed Federal coal development potential areas.

These criteria involve consideration of existing resource values such as scenic areas, natural and historic values, wildlife, flood plains, alluvial valley floors, etc. The purpose of this step is to identify areas with key features of environmental sensitivity that would make them **"unsuitable"** for surface coal mining or for surface impacts associated with coal mining.

Step 3 - Multiple Use Conflict Evaluation

This step is a review of those Federal coal lands that remain acceptable after applying the coal unsuitability criteria. It involves consideration of other multiple use values (i.e., not directly concerned with the unsuitability criteria) and identifying any areas that would be **"unacceptable"** (in addition to those identified as unsuitable) for surface or subsurface coal mining or for surface operations and impacts associated with coal mining.

Step 4 - Surface Owner Consultation

Section 714 of the Surface Mining Control and Reclamation Act (SMCRA) requires BLM to consult with certain "qualified" owners of split estate lands (i.e., private surface ownership over federally owned coal) when surface mining of the Federal coal is being considered. This was initiated during the public review and comment period for the Draft EIS.

This step does not apply to areas where only subsurface mining methods are concerned. It involves only those split estate lands within competitive Federal coal areas that remain acceptable for consideration for leasing and development by surface mining methods after conducting the multiple use conflict evaluation.

In this consultation process, qualified surface owners are asked to express their preference for or against surface mining of the Federal coal under their private lands. An individual surface owner or significant numbers of these surface owners expressing a preference against surface mining, could result in identifying some of these split estate lands as **"unavailable"** for leasing and development of the Federal coal. In such cases, these areas can still be considered for possible leasing beyond this land use planning stage. This is possible because the actual commitment of surface owner consent or refusal to consent does not occur until later in the coal activity planning process or in final processing of an individual coal lease application, prior to offering a lease for the Federal coal involved.

HOW THE PROCEDURES ARE APPLIED

To help clarify the coal screening process conducted in the planning area, two categories of coal and land/mineral ownership relationships are identified: 1) competitive Federal coal lease areas and 2) areas where Federally-owned land surface overlies state or privately owned coal. Competitive Federal coal areas are those with the potential to be considered for new competitive Federal coal leasing for either surface or subsurface mining methods, modifications to existing leases, emergency leasing, and exchanges. Areas where BLM-administered Federally-owned land surface overlies state or privately-owned coal involve potential conflict situations between managing the Federal land surface and development of the non-federal coal.

The following procedures are in accordance with the Mineral Leasing Act of 1920, the Federal Coal Leasing Amendments Act of 1976, the Federal Land Policy and Management Act of 1976, the Surface Mining Control and Reclamation Act of 1977, the Federal Coal Management Program adopted by the Secretary of the Interior in June 1979 and modified by a secretarial decision issued in January 1986, and all relative Federal regulations.

Competitive Federal Coal Areas

All four steps of the screening process are applicable to these areas when considering surface (e.g., strip) mining methods. Only steps 1-3 of the screening process are applicable to these areas when considering subsurface (e.g., underground) mining methods.

Preference Right Lease Application (PRLA) Areas

Since all rights to the Beans Spring PRLA project have been relinquished, there are no longer any coal PRLAs in the planning area. The Federal coal lands within the former project area are now part of the competitive federal coal areas and are addressed in the previous paragraph.

Federal Surface-State Coal Areas

Only steps 2 and 3 of the screening process are applicable to these areas. In applying these screening steps, any areas of the Federal land surface with key features, environmental sensitivity, or other values that would make them unsuitable or unacceptable for coal development are identified. State-owned coal reserves are not considered. The purpose for applying these screening steps to these areas is to provide a basic resource analysis for developing needed stipulations and protective measures for the Federal land surface, should the state decide to develop the coal.

FINDINGS

The following is a summary of the findings and related recommendations resulting from conducting the coal screening process. All acreages and tonnages are approximate. Additional documentation and background information, explaining in detail how the procedures were used and the findings were derived are available for public review at the BLM Rock Springs District and Green River Resource Area offices.

Refer to Table A3-1 and Table A3-2 for a summary of acreages and coal tonnages affected by the coal unsuitability findings.

Step 1 - Identification of Coal Development Potential

The areas of known and assumed coal development potential are shown on Map 31.

Step 2 - Application of Coal Unsuitability Criteria

The following discussion briefly explains findings resulting from application of each unsuitability criteria.

Criterion Number 1. Federal Land Systems and Federal Lands in Communities.

The Federal coal lands and the Federal surface/State coal lands within the incorporated limits of the towns of Rock Springs and Superior were determined to be unsuitable for coal mining and related surface operations and impacts.

Rationale: There are no exceptions available that would allow consideration of Federal coal leasing and development within incorporated cities, towns and villages.

Criterion Number 2. Rights-of-Way and Easements.

Only those Federal coal lands and Federal surface/State coal lands along the Interstate 80 and Union Pacific Railroad rights-of-way were determined to be unsuitable for coal mining and related surface operations and impacts.

Rationale: After applying the exceptions to this criterion the coal lands along the Interstate 80 and Union Pacific Railroad rights-of-way remain unsuitable because coal development would create unnecessary significant conflicts and costs associated with relocation of these rights-of-way. Most of the other rights-of-way crossing the coal development potential area can be relocated to accommodate coal mining and related activities. Thus, a "general" determination was made that most right-of-way areas would be acceptable for further leasing consideration and coal development, subject to valid existing rights and negotiations for relocating if necessary, appropriate stipulations and consistency with current planning and management decisions. Any unforeseen conflicts in these areas should be identified and resolved during the coal activity planning process, during processing of individual coal lease applications, or in mining and reclamation plan development.

Criterion Number 3. Buffer Zones for Rights-of-Way, Communities, & Buildings.

It was determined that buffer areas for rights-of-way are unnecessary. It was determined that a 100 foot buffer zone around cemeteries and a 300 foot buffer zone around occupied dwellings, public buildings, schools, churches, community or institutional buildings, or public parks would be unsuitable for coal mining and related surface operations and impacts.

Rationale: Buffer areas for rights-of-way are unnecessary because rights-of-way generally have sufficient area to contain their functions. Additionally, if a right-of-way can be relocated, a buffer would not be necessary.

There are no occupied dwellings, cemeteries, schools, churches, community or institutional buildings, or public parks on BLM-administered public land surface in the coal development potential area. However, there may be some of these structures and facilities on split estate lands (i.e., private/state surface over Federal coal) and on non-Federal lands that may be located within 100 to 300 feet of adjacent Federal coal lands. Thus, it was determined that a 100 foot buffer zone around cemeteries and a 300 foot buffer zone around occupied dwellings, public buildings, schools, churches, community or institutional buildings, or public parks would be unsuitable for coal mining and related surface operations and impacts. Should any conflicts arise, it would be the responsibility of the lessee to show that conflicts between mining and the buffer zone would be adequately addressed and mitigated to the satisfaction of both parties.

Because the numbers and locations of these structures and facilities and the affect they may have on the development of Federal coal is so variable and unpredictable, it was not possible to make a reasonable estimate of acreage and coal tonnage that may be affected. These situations will be addressed on a case-by-case basis in the course of processing coal lease applications and coal activity planning, prior to issuing Federal coal leases.

Criterion Number 4. Wilderness Study Areas.

Those parts of the Sand Dunes and Red Creek Badlands WSAs that are within the coal development potential area were determined to be unsuitable for coal mining and related surface operations and impacts as long as they are under review by Congress for possible wilderness designation. Both Federal coal lands and Federal surface/State coal lands are involved.

Rationale: There are no exceptions available that would allow consideration of Federal coal leasing and development within Wilderness Study Areas.

Criterion Number 5. Scenic Areas.

No areas were determined to be unsuitable under this criterion.

Rationale: There are no Class I visual resource areas designated within the coal development potential area.

Criterion Number 6. Lands Used For Scientific Study.

No areas were determined to be unsuitable under this criterion.

Rationale: There are no scientific study areas within the coal development potential area.

Criterion Number 7. Places Included in the National Register of Historic Places.

No areas were determined to be unsuitable under this criterion.

Rationale: There are no places within the coal development potential area which are included in the National Register of Historic Places (NRHP). There are several sites in the area which are "eligible" for listing on the NRHP. These are appropriately addressed later in the coal screening process as "other multiple use conflicts".

Sites on BLM-administered public lands that were reviewed include: Natural Corrals, Overland Trail, Cedar Canyon Petroglyphs, two sections in Pine Canyon containing petroglyphs, Crookston Ranch, North and South Table Mountains, and the historic mining towns of Gibraltar, Gunn, and Hallville.

Sites on private or state lands (i.e., split estate, private or state surface/Federal coal) that were reviewed include: Point of Rocks Stage Station, South Superior Union Hall, Rock Springs City Hall, Reliance School, and Gras House.

Criterion Number 8. National Natural Landmarks.

No areas were determined to be unsuitable under this criterion.

Rationale: There are no designated National Natural Landmarks within the coal development potential area.

Criterion Number 9. Federally Listed Endangered Species Habitat.

No areas were determined to be unsuitable under this criterion.

Rationale: Endangered species habitat was inventoried in 1981-1982 by the U.S. Fish and Wildlife Service and the Wyoming Game and Fish Department and was found not to be occupied by listed endangered species.

Criterion Number 10. State Listed Endangered Species Habitat.

No areas were determined to be unsuitable under this criterion.

Rationale: This criterion is not applicable because the State of Wyoming recognizes the Federal list of endangered species and has no separate list of its own.

Criterion Number 11. Bald and Golden Eagle Nest Sites.

No areas were determined to be unsuitable under this criterion.

Rationale: It was determined that these areas would be acceptable for coal development with a provision that any Federal coal lease issued in the area will include a requirement for developing appropriate mitigation measures that would protect the long-term interests of the species involved.

The requirement (or lease stipulation) would be to the effect that the lessee would be required to develop mitigation measures or habitat improvement/development/reclamation plans (in conjunction with mining and reclamation plan requirements) in consultation with and to the satisfaction of BLM, the USFWS and the appropriate State agencies. Mitigation measures may include but would not be limited to such things as seasonal operations in buffer zones around "occupied" nests, protection of "active" (not necessarily occupied) nests at all times (unless otherwise provided by the USFWS), off or on site habitat improvement or development, special reclamation measures, or other appropriate measures for long-term nest or habitat protection.

Criterion Number 12. Bald and Golden Eagle Roosts.

No areas were determined to be unsuitable under this criterion.

Rationale: It was determined that these areas would be acceptable for coal development with a provision that any Federal coal lease issued in the area will include a requirement for developing appropriate mitigation measures that would protect the long-term interests of the species involved.

The requirement (or lease stipulation) would be to the effect that the lessee would be required to develop mitigation measures or habitat improvement/development/reclamation plans (in conjunction with mining and reclamation plan requirements) in consultation with and to the satisfaction of BLM, the USFWS and the appropriate State agencies. Mitigation measures may include but would not be limited to such things as seasonal operations in roosting areas, special reclamation measures or other appropriate measures for long-term habitat protection.

Criterion Number 13. Falcon Cliff Nesting Sites.

No areas were determined to be unsuitable under this criterion.

Rationale: It was determined that these areas would be acceptable for coal development with a provision that any Federal coal lease issued in the area will include a requirement for developing appropriate mitigation measures that would protect the long-term interests of the species involved.

The requirement (or lease stipulation) would be to the effect that the lessee would be required to develop mitigation measures or habitat improvement/development/reclamation plans (in conjunction with mining and reclamation plan requirements) in consultation with and to the satisfaction of BLM, the USFWS and the appropriate State agencies. Mitigation measures may include but would not be limited to such things as seasonal operations in buffer zones around "occupied" nests, protection of "active" (not necessarily occupied) nests at all times (unless otherwise provided by the USFWS), off or on site habitat improvement or development, special reclamation measures, or other appropriate measures for long-term nest or habitat protection.

Criterion Number 14. Migratory Bird Habitat.

No areas were determined to be unsuitable under this criterion.

Rationale: It was determined that these areas would be acceptable for coal development with a provision that any Federal coal lease issued in the area will include a requirement for developing appropriate mitigation measures that would protect the long-term interests of the species involved.

The requirement (or lease stipulation) would be to the effect that the lessee would be required to develop mitigation measures or habitat improvement/development/reclamation plans (in conjunction with mining and reclamation plan requirements) in consultation with and to the satisfaction of BLM, the USFWS and the appropriate State agencies. Mitigation measures may include but would not be limited to such things as seasonal operations in buffer zones around "occupied" nests and other important habitat areas, protection of "active" (not necessarily occupied) nests at all times (unless otherwise provided by the USFWS), off or on site habitat improvement or development, special reclamation measures, or other appropriate measures for long-term nest or habitat protection.

Criterion Number 15. Habitat for State High-Interest Wildlife and Plants.

No areas were determined to be unsuitable under this criterion. The greater Cooper Ridge and Elk Butte areas were determined to be acceptable for further consideration for Federal coal leasing and development, pending further analysis.

Rationale: The primary habitat considerations involved with the coal development potential area are big game crucial winter ranges, elk calving areas, grouse leks and nesting areas, and burrowing owl nesting areas. It was determined that these habitat areas would be acceptable for coal development with a provision that any Federal coal lease issued in these areas would include a requirement for developing appropriate mitigation measures that would protect the long-term interests of the species and habitats involved.

The requirement (or lease stipulation) would be to the effect that the lessee would be required to develop mitigation measures or habitat improvement/development/reclamation plans (in conjunction with mining and reclamation plan requirements) to the satisfaction of BLM and the appropriate State agencies. Mitigation measures may include but would not be limited to such things as seasonal operations in some areas, off or on site habitat improvement or development, special reclamation measures, or other appropriate measures for long-term habitat protection.

Concerning the Greater Cooper Ridge and Elk Butte Areas

The greater Cooper Ridge and Elk Butte areas (about 25,765 acres and 438 million tons of coal) were determined to be acceptable for further consideration for Federal coal leasing and development, pending further analysis. This analysis is for the purpose of defining the extent of any deer and antelope crucial winter range in the area, and for determining if certain methods of coal mining can occur in the area without having a significant long-term impact on the deer and antelope herds. About 395 acres of State coal lands would also be affected.

Concerning Grouse Lek Areas

Active grouse leks (sage and sharptail) and the area within 1/4 mile radius of active leks (about 667 acres and 11.3 million tons of coal) were determined to be acceptable for coal development. Exploration activities and ancillary facilities would be allowed provided that (1) the surface disturbing activities related to exploration and ancillary facility development avoid the lek and 1/4 mile radius areas, if possible, and where not possible, intensive mitigation were applied; (2) permanent and high profile structures, such as buildings, overhead powerlines, other types of ancillary facilities, etc., were prohibited in these areas; and (3) during the grouse mating season, surface uses and activities were prohibited between the hours of 6:00 p.m. and 9:00 a.m., within 1/2 mile radius of the leks.

Grouse nesting areas (sage or sharptail grouse) were determined to be acceptable for further consideration for Federal coal leasing and development with certain requirements. Exploration activities and ancillary facilities will be allowed with the following requirement. If an occupied grouse nest may be adversely affected by coal mining and related surface disturbing activities, surface uses and activities will be delayed in the area of influence for the nest until nesting is completed.

Criterion Number 16. Riverine, Coastal, and Special Floodplains.

The floodplains of Bitter Creek and Salt Wells Creek were determined to be unsuitable for coal mining and related surface operations and impacts.

Other riparian and wetland habitat areas were determined to be acceptable for coal development, if they were managed as avoidance areas for surface disturbing activities.

Rationale: With the exception of Bitter Creek and Salt Wells Creek, it was determined that the floodplain areas within the coal development area can generally be mined in such a manner that all or certain stipulated methods of coal mining can be undertaken without substantial threat of loss to people or property and to the natural and beneficial values of the floodplain, either on a coal lease tract or downstream. Examples of lease requirements may include but are not limited to relocation of channels during mining and restoration of channel locations after mining, controlling sediment yields and prohibiting spoil dumping in channels, lining channel bottoms, revegetation and general mined land reclamation, etc. There are no exceptions available that would allow consideration of federal coal leasing and development of Bitter Creek and Salt Wells Creek as it has been determined that mining could not be undertaken without substantial threat of loss of life or property.

Concerning Riparian and Wetland Habitat Areas (incomplete data)

Other riparian and wetland habitat areas (about 2,000 acres and 34 million tons of coal) were determined to be acceptable for coal development, if they were managed as avoidance areas for surface disturbing activities. That is, surface disturbing activities associated with such actions as surface coal mining methods, exploration drilling, construction of roads and other types of rights-of-way, etc., would be avoided in these areas, if possible. In cases where it would not be possible to avoid these areas, intensive mitigation of the surface disturbing activities would be emphasized.

Criterion Number 17. Municipal Watersheds.

The Federal coal lands within the municipal watershed for the town of Superior were determined to be unsuitable for coal mining and related surface operations and impacts.

Rationale: These lands are a part of the surface outcrop of the Ericson Formation and the associated recharge area, in the area northeast of Superior. The Town of Superior obtains its drinking water from wells drilled into the Ericson Formation. In consultation with the Town of Superior, it was determined that the exception to this criterion could not be applied.

Criterion Number 18. National Resource Waters.

No areas were determined to be unsuitable under this criterion.

Rationale: No National Resource Waters, within the coal development potential area, have been identified by the State of Wyoming in its water quality management plan.

Criterion Number 19. Alluvial Valley Floors.

No areas were determined to be unsuitable under this criterion.

Rationale: No alluvial valley floors have been identified by the State of Wyoming or by BLM within the coal development potential area.

Criterion Number 20. Unsuitability Criterion Proposed by a State or by an Indian Tribe.

No areas were determined to be unsuitable under this criterion.

Rationale: Neither the State of Wyoming nor any Indian Tribes have proposed any unsuitability criteria to the Secretary of the Interior.

Summary of Results of Application of the Unsuitability Criteria

Approximately 12,000 acres of public lands within the coal development potential area (containing approximately 225 million tons of coal) were determined to be unsuitable for coal mining and related surface operations and impacts (Map 32). Areas found to be unsuitable include incorporated towns, the rights-of-way for Interstate 80 and the Union Pacific Railroad, WSAs, floodplains, and the Town of Superior municipal watershed recharge area.

Federal surface/State Coal lands affected by the unsuitability determinations are listed in Table A3-2.

Step 3 - Multiple Use Conflicts

In this step of the coal screening process, those lands which were determined to be acceptable for further leasing consideration and for coal development after applying the coal unsuitability criteria, were further evaluated. This evaluation involved consideration of potential conflicts of coal development with other multiple use values (i.e., values not only or directly concerned with the unsuitability criteria) and identifying any additional areas that would be "unacceptable" for coal mining or related surface operations and impacts.

This evaluation of other multiple use conflicts involves a somewhat complicated procedure of sequentially analyzing and developing the various coal management scenarios presented in the alternatives of the EIS.

1. Alternative A - The impact analysis of the coal management actions for Alternative A (continuation of existing management direction or the "No Action" alternative) described in Chapter 2 of the EIS, is documented in Chapter 4 of the EIS. The results of the other multiple use conflict evaluation of this alternative for coal screening was summarized in Appendix 3-1 of the EIS for the RMP. As pointed out earlier, the coal management actions for Alternative A are the same as those developed in 1981, and were provided for purposes of comparative analysis only. The 1981 coal management decisions and the data they were based on are now outdated and inadequate and will be superseded by the 1992 coal screening application and the approved Green River RMP.

2. Alternative B - Based on the results of the 1992 application of the coal unsuitability criteria on the coal development potential area (documented above), the coal management scenario for Alternative B was developed in Chapter 2 of the EIS). A basic assumption of the coal management scenario for Alternative B was that, with very few exceptions, any conflicts or impacts to values concerned with the unsuitability criteria, that may be caused by coal mining and related surface operations and impacts, could be mitigated or would be allowable. Thus, as presented in the above results of applying the coal unsuitability criteria, except for the 12,000 acres determined to be unsuitable, the exceptions to the bulk of the unsuitability criteria would be applicable and, in addition, requirements for environmental protection or protection of other multiple use values would meet minimum requirements.

   The results of the other multiple use conflict evaluation of Alternative B are documented in the following pages. They were derived from the impact analysis of Alternative B in Chapter 4 of the EIS.

3. Alternative C - Based on the results of both the application of the unsuitability criteria and the impact analysis of Alternative B, the coal management scenario for Alternative C was developed in Chapter 2 of the EIS. To provide a good basis for comparative impact analysis, a basic assumption for the Alternative C coal scenario was that most conflicts or impacts to values concerned with the unsuitability criteria, that may be caused by coal mining and related surface operations and impacts, could not be mitigated or would not be allowable. Thus, in direct contrast to the above scenario for Alternative B, none of the exceptions to the unsuitability criteria would be applicable (i.e., all factors related to the criteria would be assumed unsuitable) and requirements for environmental protection and protection of other multiple use values would be heavy to extreme.

   The results of the other multiple use conflict evaluation of Alternative C were derived from the impact analysis of Alternative C (Chapter 4 of the EIS) and are documented below.

4. Proposed Plan - In addition to the results of the application of the coal unsuitability criteria, the coal management scenario for the Proposed Plan (Chapter 2 of the EIS) was also based on the comparative analyses and other multiple use conflict evaluations of both Alternatives B and C. That is, the coal management scenario for the Proposed Plan was developed to strike a happy medium between any excessive or unnecessary impacts to other resource and land use values that may result from Alternative B and any excessive or unnecessary impacts to coal development that may result from Alternative C.

   The results of the other multiple use conflict evaluation of the Proposed Plan were derived from the impact analysis of the Proposed Plan (Chapter 4 of the EIS) and are documented below.

Table A3-3 shows the acreage and coal tonnages affected in the multiple use conflict evaluation by land and coal ownership categories.

Alternative B

Under Alternative B, about 433,000 acres of federal coal lands and about 7.3 billion tons of coal, within the Coal Development Potential Area (see Map 31), would be open to further consideration for coal leasing and development (i.e., new competitive leasing, emergency leasing, lease modifications, and exchange proposals, under the Federal Coal Management Program), with appropriate and necessary conditions and requirements for protection of other land and resource values and uses (Map 33).

Conflict: Coal development activities and related surface operations and activities would cause conflicts within the Rock Springs Expansion Area.

Analysis: Primary concerns are public health and safety and conflicts with expanding subdivisions and development around Rock Springs.

Determination: Coal mining activities in the Rock Springs Expansion Area would be unacceptable. Therefore, about 10,000 acres and 170 million tons of federal coal would be unacceptable for further leasing consideration.

Conflict: Coal development activities and related surface operations and activities would cause conflicts within the Cedar Canyon, Greater Sand Dunes, Natural Corrals, and Steamboat Mountain ACECs.

Analysis: Coal development by surface mining methods and other surface operations and activities would adversely affect the wildlife, cultural, geologic and scenic values. Development would also conflict with management objectives in the Steamboat Mountain ACEC.

Determination: The ACECs would be acceptable for coal development by subsurface mining methods only, to protect area values. About 20,775 acres and 176.5 million tons of coal would be affected.

Only very limited surface facilities would be allowed on the Cedar Canyon and Steamboat Mountain areas.

The Natural Corrals and Greater Sand Dunes areas would be unacceptable for any surface operations and activities related to coal mining.

Conflict: Coal development activities and related surface operations and activities would conflict with known and unknown historic and cultural values and sites that are eligible for listing on the National Register of Historic Places.

Analysis: Current policy requires that known and unknown historic and cultural sites be identified and appropriate measures taken prior to disruption of sites. Some areas would not be acceptable for coal development by surface mining methods or for surface operations and activities.

The Eastern Shoshone Tribe has expressed concern that areas of interest to them for religious or spiritual reasons may be within the coal development potential area. They have not visited the area to address specific concerns and would like to reserve the right to comment concerning specific areas proposed for coal leasing. The Uinta Ouray (Ute), Bannock-Northern Shoshone and Northern Arapahoe tribes have also been consulted but have not provided comments.

Determination: In cases where underground mining methods would be used, potential affects to surface historic and cultural values of any eligible National Register sites within the Federal coal development potential area can be avoided or mitigated. Where surface mining methods and surface operations are concerned, any affects to eligible National Register sites within the Federal coal development potential area that may be included within a Federal coal lease or that may be affected by coal mining could be mitigated by avoidance, documentation, excavation or other means. An unknown amount of acreage and tons of coal would be affected.

Surveys for cultural resources would be done during coal activity planning, processing of individual coal lease applications, during mine plan approval processing, and during the term of the lease and mine-life.

Prior to coal leasing, the tribes that are known to have inhabited the lands in and near the planning area in the historic past will be solicited for comments.

Conflict: Coal development activities and related surface operations and activities, combined with other activities such as other energy development, community and population expansion, simultaneously conflict with big game in big game crucial winter ranges and overlapping fawning/calving areas.

Analysis: Continuous and simultaneous development in big game crucial winter ranges and fawning/calving areas may adversely affect habitat and cause stress and displacement of big game during crucial periods. Mining operations, particularly in conjunction with other operations and activities, would reduce availability and useability of crucial winter ranges and calving/fawning areas. This can result in displacement of animals from traditional ranges and in some cases mortality due to a lack of important habitats to support these animals.

Determination: A provision for maintaining a balance between coal leasing and development and adequate crucial winter range and birthing area habitats to prevent significant adverse impacts to important big game species would be required. This would be accomplished through controlled timing and sequencing of Federal coal leasing and development in these areas. About 14,900 acres and 240 million tons of coal would be affected.

Conflict: Coal development activities and related surface operations and activities would conflict with important Colorado River cutthroat trout habitat values in the North Fork of Vermillion Creek drainage.

Analysis: Coal development and other surface operations and activities would cause excessive surface and watershed disturbance in this area that would significantly affect riparian habitat and water quality requirements to sustain the reintroduction of Colorado River cutthroat trout in the creek.

Determination: The North Fork of Vermillion Creek drainage was determined to be unacceptable for coal mining and related surface operations and activities. Therefore, about 408 acres and 6.9 million tons of coal would be unacceptable for further leasing consideration.

Conflict: Coal development activities and related surface operations and activities would conflict with the natural values of Boars Tusk and Emmons Cone.

Analysis: Coal development by surface mining methods and other surface operations and activities would destroy the natural values of these areas which contain unique geologic features. Spiritual leaders of the Shoshone Tribe have indicated an interest in the Boars Tusk unique geographic landform.

Determination: About 150 acres (90 for Boars Tusk and 60 for Emmons Cone) and 1.3 million tons of coal would be acceptable for coal development by subsurface mining methods only. These lands would be unacceptable for surface coal mining methods and any surface operations and activities related to coal mining.

Conflict: Coal development activities and related surface operations and activities would conflict with the historic structures at Crookston Ranch and the surrounding 500-acre viewshed.

Analysis: The Crookston Ranch site is a representative example of Wyoming Basin homestead era vernacular architecture and is eligible for the National Register of Historic Places. The ranch itself covers about 40 acres, but its surrounding setting (about 500 acres) adds much to the issues the BLM intends to interpret at the site. The area would be adversely affected by surface coal mining activities and other surface operations and activities.

Determination: The Crookston Ranch site and surrounding area would be acceptable for coal mining by subsurface mining methods only. These same lands would be unacceptable for surface coal mining methods and any surface operations and activities related to coal mining. The structures and setting of the historic ranch would be preserved. This would affect about 500 acres and 4.2 million tons of coal.

Conflict: Coal development activities and related surface operations would conflict with cultural sites and historic features such as the historic mining towns of Gunn, Gibraltar, and Hallville, and portions of the Overland Trail on BLM-administered lands.

Analysis: These features are important historic sites and contain sensitive cultural resources and would be adversely affected by surface coal mining methods and other surface operations and activities.

Determination: These areas, involving about 1,570 acres (about 1,280 acres along portions of the Overland Trail on BLM-administered lands (4 miles x 320 acres/mile)), 290 acres including the historic mining towns of Gunn (10 acres), Gibraltar (30 acres), and Hallville (250 acres), and about 13.3 million tons of coal would be acceptable for coal development by subsurface mining methods only. These same lands would be unacceptable for surface coal mining methods and any surface operations and activities related to coal mining.

Conflict: Coal development activities and related surface operations would conflict with historic and prehistoric features on North and South Table Mountains.

Analysis: These areas include several archeological sites of a sensitive nature that would be adversely affected by surface coal mining methods and other surface operations and activities. Spiritual leaders of the Shoshone Tribe have indicated an interest in these unique geographic landforms.

Determination: These areas, involving about 1,280 acres and about 10.8 million tons of coal, would be acceptable for coal development by subsurface mining methods only. These same lands would be unacceptable for surface coal mining methods and any surface operations and activities related to coal mining.

Conflict: Coal development activities and related surface operations would conflict with the Tolar and Cedar Canyon rock art sites and surrounding areas and the Pine Canyon rock art sites.

Analysis: These rock art sites and their character of setting in surrounding areas, would be adversely affected by surface coal mining methods and other surface operations and activities.

Determination: The structures and setting of the rock art panels would be preserved. The Tolar rock art site (about 20 acres of Federal coal lands and 170,000 tons of coal) would be acceptable for coal development by subsurface mining methods only. These same lands would be unacceptable for surface coal mining methods and any surface operations and activities related to coal mining. The Cedar Canyon Petroglyph site (about 20 acres of Federal coal lands and 170,000 tons of coal) would be acceptable for coal development by subsurface mining methods only. These same lands would be unacceptable for surface coal mining methods and any surface operations and activities related to coal mining. The areas surrounding the Tolar and Cedar Canyon Rock Art sites (about 1,000 acres of Federal coal lands and 8.4 million tons of coal) would be acceptable for coal development by subsurface mining methods only. These same lands would be unacceptable for surface coal mining methods and any surface operations and activities related to coal mining.

About 1,280 acres containing approximately 10.8 million tons of coal in Pine Canyon would be acceptable for coal development by subsurface mining methods only. These same lands would be unacceptable for surface coal mining methods and any surface operations and activities related to coal mining.

Conflict: Coal development and related surface operations "could" conflict with the resource values in the Sage Creek watershed.

Analysis: Management in this area would be focused on candidate fish species and their habitat and watershed protection and improvement. Surface coal mining methods and other surface operations and activities could adversely affect these values.

Determination: About 9,600 acres and 81.6 million tons of coal in the Sage Creek watershed would be acceptable for development by surface and subsurface coal mining methods, with certain mitigation. Coal leases and development in the area would include requirements for plans of development, mining plans, etc., to include adequate mitigation measures to assure protection of the fisheries and watershed values, prior to allowing any mining activity.

Conflict: Coal development and related surface operations would conflict with the groundwater recharge area to an aquifer in the Almond Formation, once believed to supply water to the Town of South Superior.

Analysis: The Town of South Superior uses groundwater from an aquifer in the Ericson Formation, a formation below and distinct from the Almond Formation. Wells are drilled through the Almond Formation to reach the Ericson Formation, but the Almond Formation is not used as a source of water. Mining in the Almond Formation would thus not affect the aquifer being used by the town of South Superior.

Determination: About 4,710 acres and 80 million tons of coal in the Almond Formation east of the Town of South Superior were determined to be acceptable for coal development by surface and subsurface mining methods. Adequate protection would be provided to the Ericson Formation aquifer that supplies the drinking water to South Superior. Since the Almond Formation recharge area does not affect the town water supply, and adequate mitigation can be provided to ensure protection of the Ericson Formation recharge area (west of the Almond Formation recharge area), mining could occur.

Alternative C

Under Alternative C, about 16,900 acres of federal coal lands and about 287 million tons of coal, within the Coal Development Potential Area (see Map 31), would be open to further consideration for coal leasing and development (i.e., new competitive leasing, emergency leasing, lease modifications, and exchange proposals, under the Federal Coal Management Program) with appropriate and necessary conditions and requirements for protection of other land and resource values and uses (Map 34).

Conflict: The comparatively small area open to coal leasing and development and the heavy degree of protection afforded to other resource values would severely conflict with and cause significant impacts to coal development.

Analysis: Under Alternative C, the opportunity to provide mitigation of adverse affects of coal mining and related activities on other resource values is nonexistent. The coal management scenario for this alternative avoided any possibility of adverse coal mining impacts on other values by simply disallowing any mining where a real or potential conflict might occur. When compared to the affects of controlled and mitigated coal mining activities, as would occur under Alternatives A and B, there is little, if any, significant difference in impacts to other resource values that would be caused by coal mining among the A, B, and C alternatives. However, the impacts to coal development under Alternative C would cause a severe decline in coal production and, over the long term, the opportunity for coal development would be lost.

Determination: The extent of restriction to coal development and the extent of protection of other resource values were determined to be extremely excessive and unnecessary. The resulting degree of lost coal development opportunity was determined to be an unnecessary and unacceptable impact and therefore this coal development option should be dropped from further consideration.

Proposed Plan

Under the proposed plan, about 422,500 acres of federal coal lands and about 7.2 billion tons of coal within the Coal Development Potential Area (see Map 31) would be open to further consideration for coal leasing and development (i.e., new competitive leasing, emergency leasing, lease modifications, and exchange proposals, under the Federal Coal Management Program) with appropriate and necessary conditions and requirements for protection of other land and resource values and uses (Map 35, Map 36, and Map 37).

The coal development scenario for the Proposed Plan was derived primarily through considering and comparing the impact analyses of the coal development scenarios for Alternatives B and C as summarized above. The coal development scenario in the Proposed plan is a modification of the Alternative B scenario. That is, the areas identified as unacceptable for coal development in the impact analysis of Alternative B were not included in the coal development scenario for the Proposed Plan. Only the areas that were determined to be acceptable for coal development (including specified mining methods and mitigation requirements) became a part of the coal development scenario for the Proposed Plan. As a result, there were no unacceptable adverse affects that would be caused by coal development identified in the analysis of the Proposed Plan.

Step 4 - Surface Owner Consultation

Surface owner consultation was initiated during the public comment and review period for the Green River Draft EIS. There were no surface owners of split-estate lands (i.e., privately-owned surface over Federally-owned coal) who expressed a preference against surface mining the Federal coal on their lands. Therefore, there were no Federal coal lands in the Planning Area determined to be unavailable for further consideration for leasing and development due to surface owner consultation. It should be understood that surface owners of split estate lands still have the opportunity to consent or refuse to consent to the leasing of federal coal, under their lands, before such federal coal leases would be issued.

Surface owner consultation does not apply to Federal surface/State coal areas, PRLAs, or to competitive Federal coal areas where subsurface mining is concerned.

TABLE A3-1
1995 APPLICATION OF COAL UNSUITABILITY CRITERIA: COMPETITIVE FEDERAL COAL AREAS (acres)

Unsuitability Criterion	Federal Surface/ Federal Coal	State Surface/ Federal Coal	Private Surface/ Federal Coal	Total Unsuitable	Tonnages[1] (millions)
Coal Development Potential Area (Total)	422,000	82	11,860		
1. Cities/Towns	678	0	1,594	2,272	38.6
2. I-80 & UPRR	856	0	160	1,016	17.3
3. Dwelling Buffer[2]	0	0	0	0	0
4. WSAs	4,294	0	0	4,294	73
5. Scenic Federal Lands	0	0	0	0	0
6. Scientific Studies	0	0	0	0	0
7. Sites on the National Register of Historic Places	0	0	0	0	0
8. Natural Areas or National Natural Landmarks	0	0	0	0	0
9. Threatened or Endangered Plant and Animal Species	0	0	0	0	0
10. State Listed Animal Species and Plant Species	0	0	0	0	0
11. Bald or Golden Eagle Nest and Buffer Zones	21,995	0	0	0	0

TABLE A3-1 (continued)
1995 APPLICATION OF COAL UNSUITABILITY CRITERIA: COMPETITIVE FEDERAL COAL AREAS (acres)

Unsuitability Criterion	Federal Surface/ Federal Coal	State Surface/ Federal Coal	Private Surface/ Federal Coal	Total Unsuitable	Tonnages[1] (millions)
12 Bald and Golden Eagle Roost and Concentration Areas	0	0	0	0	0
13 Falcon Cliff Nesting Site and Buffer Zones	10,576	0	536	0	0
14 High Priority Habitat for Migratory Bird Species	112,920	0	1,893	0	0
15 Species of State High Interest					
-antelope crucial winter range	140,861		3,306	0	0
-elk crucial winter range	30,367		611	0	0
-elk calving	12,720		658	0	0
-deer crucial winter range	124,860	81	3,205	0	0
-deer parturition	6,933		78	0	0
-sage grouse leks (1/4-mile buffer)	667	0	0	0	0
-sage grouse (2-mile buffer)	41,260	41	154	0	0
-streams (500' buffer)	12,660	0	0	0	0
-wetlands and floodplains	1,789	0	19	0	0
16 Floodplains (estimated)	1,938	25	160	2,135	36.3
17 Watersheds	1,862	0	2	1,864	31.7
18 National Resource Waters	0	0	0	0	0
19 Alluvial Valley Floors	0	0	0	0	0
20 Lands Identified by an Indian Tribe	0	0	0	0	0

[1] Coal tonnage figures are based upon an average 17,000 tons per acre, where both surface and subsurface mining are affected.

[2] Actual acreages and tonnages are unknown.

Note: No Federal Surface/Private Minerals lands exist in the Coal Development Potential Area.

APPENDIX 3

TABLE A3-2
1995 APPLICATION OF COAL UNSUITABILITY CRITERIA: FEDERAL SURFACE/STATE COAL

Unsuitability Criterion	Federal Surface/State Coal		
	Acres	Tonnages[1] (millions)	Unsuitable Acres
Coal Development Potential Area (Total)	30,382		
1. Cities/Towns	386		386
2. I-80 & UPRR	51		51
3. Dwelling Buffer	0		
4. WSAs	575		575
5. Scenic Federal Lands	0		
6. Scientific Studies	0		
7. Sites on the National Register of Historic Places	0		
8. Natural Areas or National Natural Landmarks	0		
9. Threatened or Endangered Plant and Animal Species	0		
10. State Listed Animal Species and Plant Species	0		
11. Bald or Golden Eagle Nest and Buffer Zones	2,245	3.8	
12. Bald and Golden Eagle Roost and Concentration Areas	0		
13. Falcon Cliff Nesting Site and buffer zones	890	15.1	
14. High Priority Habitat for Migratory Bird Species			
-raptor nests & buffer zones	9,874	167.9	
15. Species of State High Interest			
-antelope crucial winter range	7,340	124.8	0
-elk crucial winter range	702	11.9	0
-elk calving	0	0	0
-deer crucial winter range	4,887	83.1	0
-deer parturition	0	0	0
-sage grouse (1/4-mile buffer)	0	0	0
-sage grouse (2-mile buffer)	3,639	61.8	0
-streams (500' buffer)	495	8.4	0
-wetlands and floodplains	111	1.9	0
16. Floodplains (estimated)	0		0
17. Watersheds	0		0
18. National Resource Waters	0		0
19. Alluvial Valley Floors	0		0
20. Lands Identified by an Indian Tribe	0		0

[1] Coal tonnage figures are based upon an average 17,000 tons per acre, where both surface and subsurface mining are affected.

Note: No Federal Surface/Private Minerals lands exist in the Coal Development Potential Area.

TABLE A3-3
SUMMARY OF OTHER MULTIPLE USE CONFLICT EVALUATION
(Alternative B)

	Competitive Federal Coal		Federal Surface/ State Coal		
Area	Acres	Tonnages[1] (millions)	Acres	Tonnages[1] (millions)	Findings
North Fork Vermillion Creek (estimated)	405	6.9	0	0	unacceptable for surface or subsurface mining methods
Boars Tusk	0	0	90	0.76	acceptable for subsurface mining methods only
Greater Sand Dunes ACEC	7,140	60.7	0	0	acceptable for subsurface mining methods only
Cedar Canyon ACEC	1,907	16.2	643	5.4	acceptable for subsurface mining methods only
Natural Corrals ACEC	1,275	10.8	0	0	acceptable for subsurface mining methods only
Steamboat Mountain ACEC	9,810	83.4	0	0	acceptable for subsurface mining methods only
Emmons Cone	60	0.5	0	0	acceptable for subsurface mining methods only
Historic Trails	8,090	68.7	350	2.9	acceptable for subsurface mining methods only
North and South Table Mountains	640	5.4	640	5.4	acceptable for subsurface mining methods only
Pine Canyon	1,280	10.8	0	0	acceptable for subsurface mining methods only
Rock Springs Modified Expansion Area	10,005	170.1	191	3.2	unacceptable for surface and subsurface mining methods
Sage Creek Watershed	8,995	76.4	655	5.5	acceptable for surface & subsurface mining methods
Superior Recharge	4,580	77.9	130	2.2	acceptable for surface and subsurface mining methods
Historic and Cultural Sites Eligible for Listing on the NRHP					[2]
Historic Mining Towns	290	2.4	0	0	acceptable for subsurface mining methods only

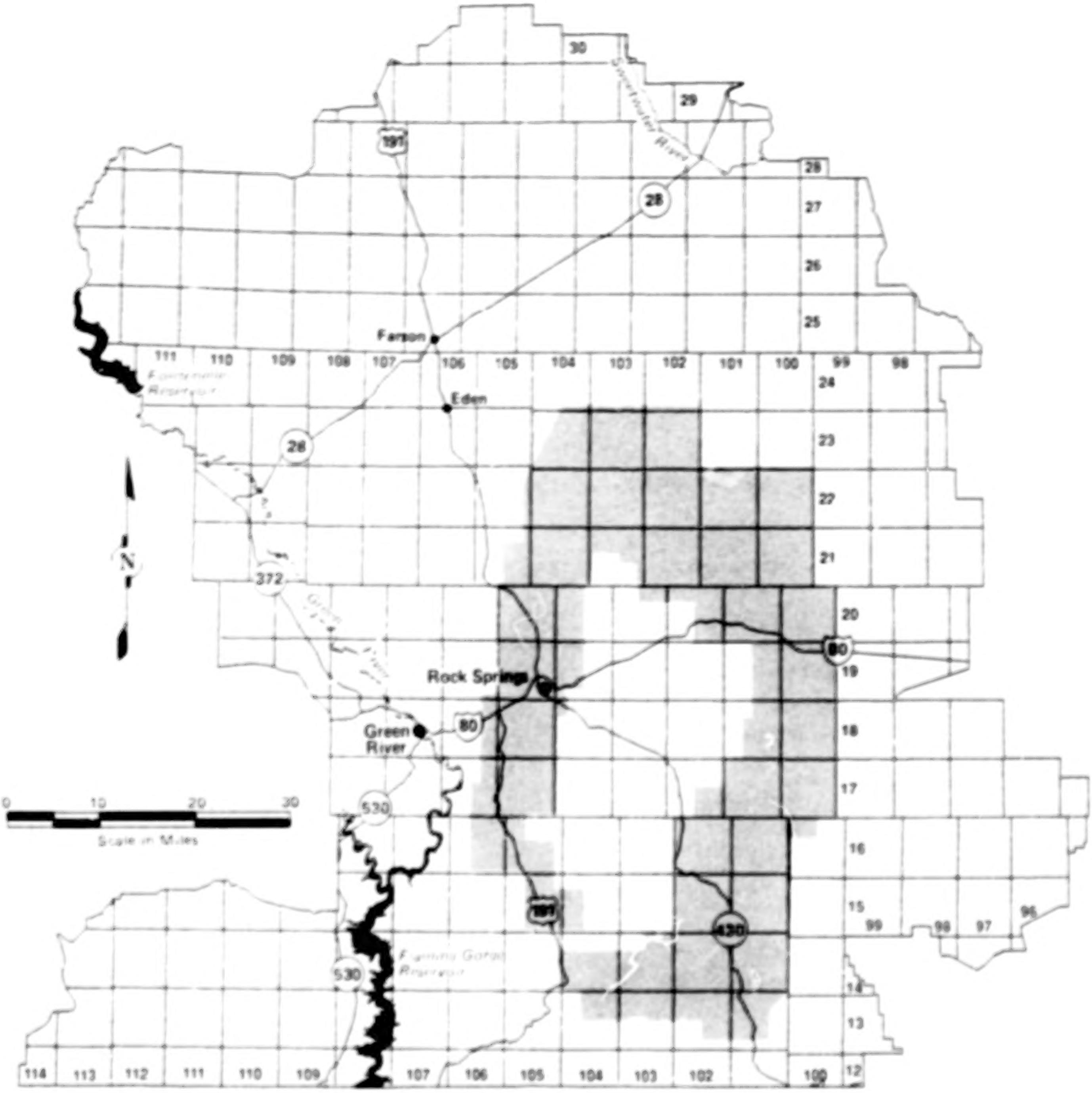
TABLE A3-3 (continued)
SUMMARY OF OTHER MULTIPLE USE CONFLICT EVALUATION
(Alternative B)

	Competitive Federal Coal		Federal Surface/ State Coal		
Area	**Acres**	**Tonnages[1] (millions)**	**Acres**	**Tonnages[1] (millions)**	**Findings**
Cedar Canyon Petroglyphs & 500-acre buffer	500	4.2			acceptable for subsurface mining methods only
Crookston Ranch and 500-acre buffer	500	4.2			acceptable for subsurface mining methods only
Tolar Petroglyphs Site and 500-acre buffer	500	4.2			acceptable for subsurface mining methods only
Big Game Crucial Winter Ranges and Overlapping Parturition Areas	14,590	248	0	0	acceptable for surface and subsurface mining methods

[1] Coal tonnage figures are based upon an average 17,000 tons per acre, where both surface and subsurface mining are affected

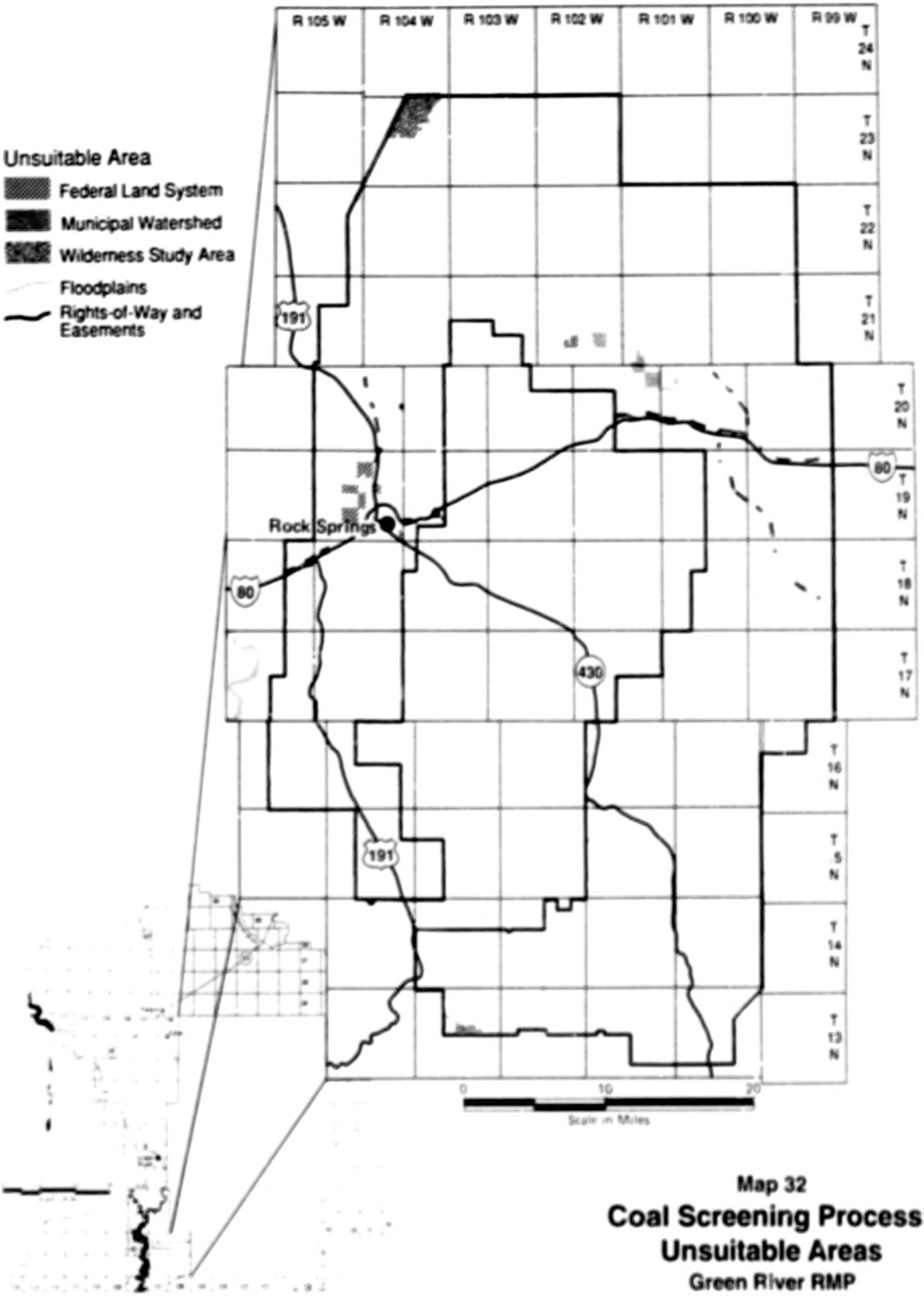
[2] To be determined on a case-by-case basis

Note: No Federal Surface/Private Minerals lands exist in the Coal Development Potential Area



▨ Coal Development Potential Area

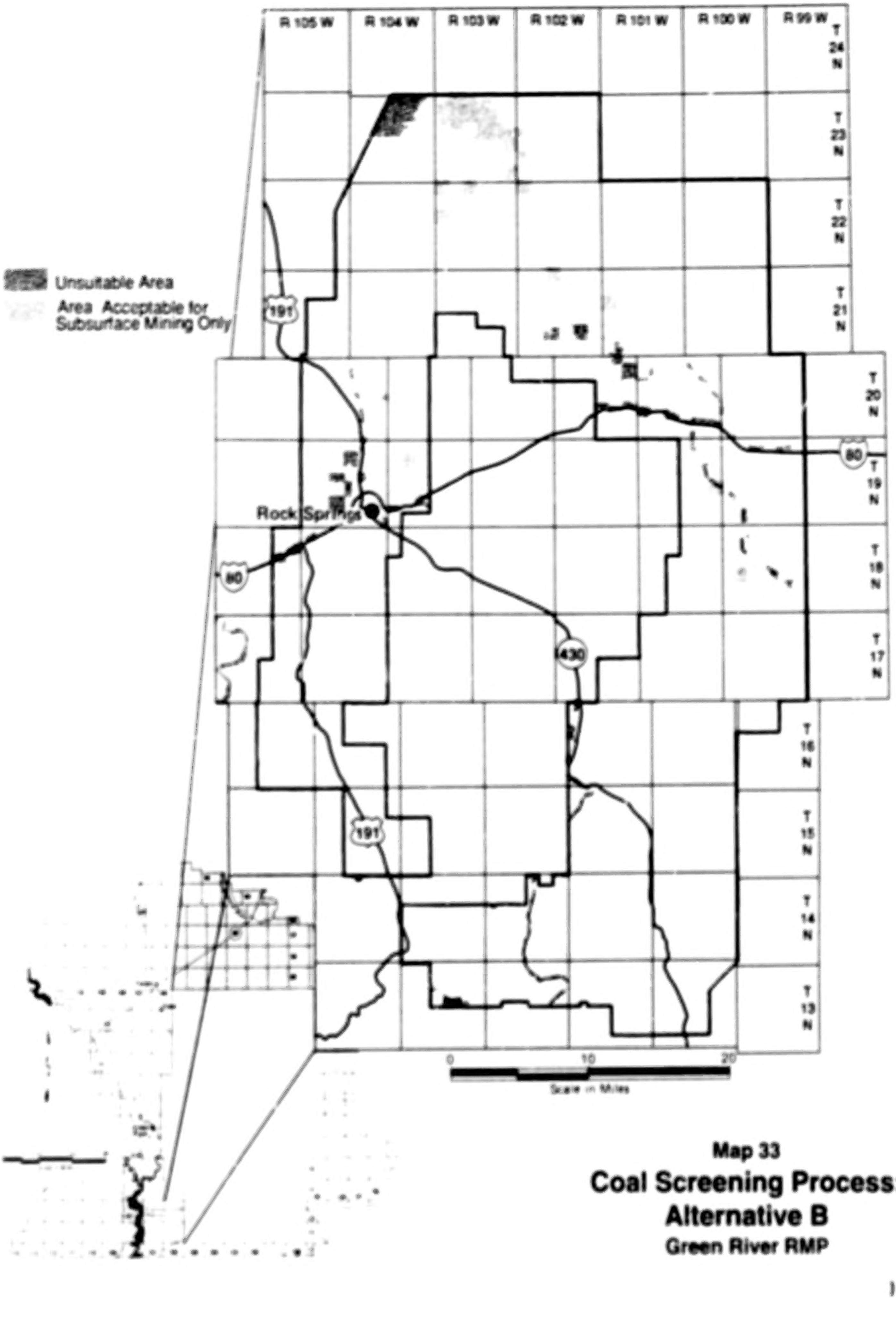
Map 31
Coal Development Potential Area
Green River RMP



Map 32

Coal Screening Process: Unsuitable Areas

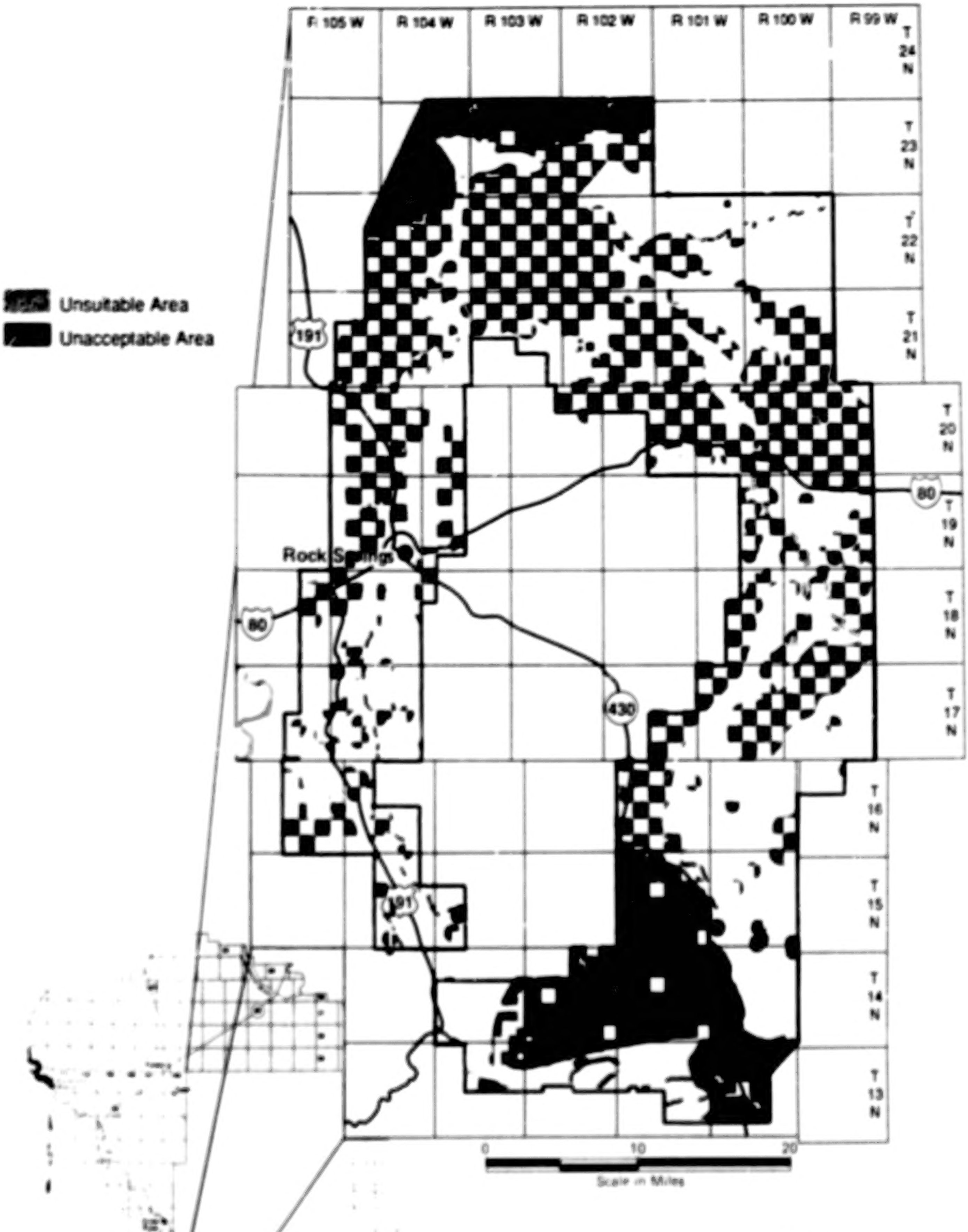
Green River RMP



Map 33

Coal Screening Process: Alternative B

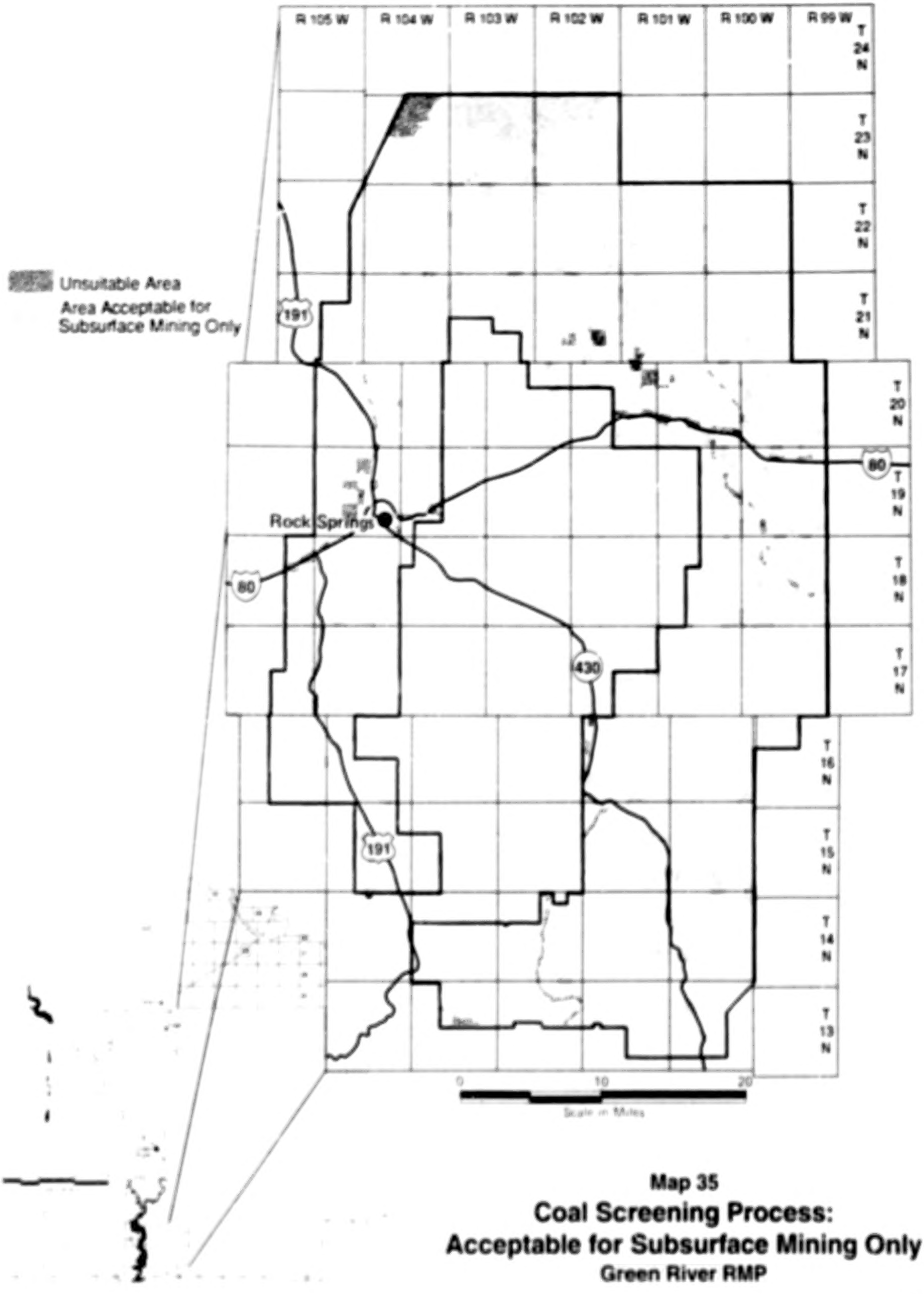
Green River RMP



Map 34

Coal Screening Process: Alternative C

Green River RMP



Map 35

Coal Screening Process: Acceptable for Subsurface Mining Only

Green River RMP

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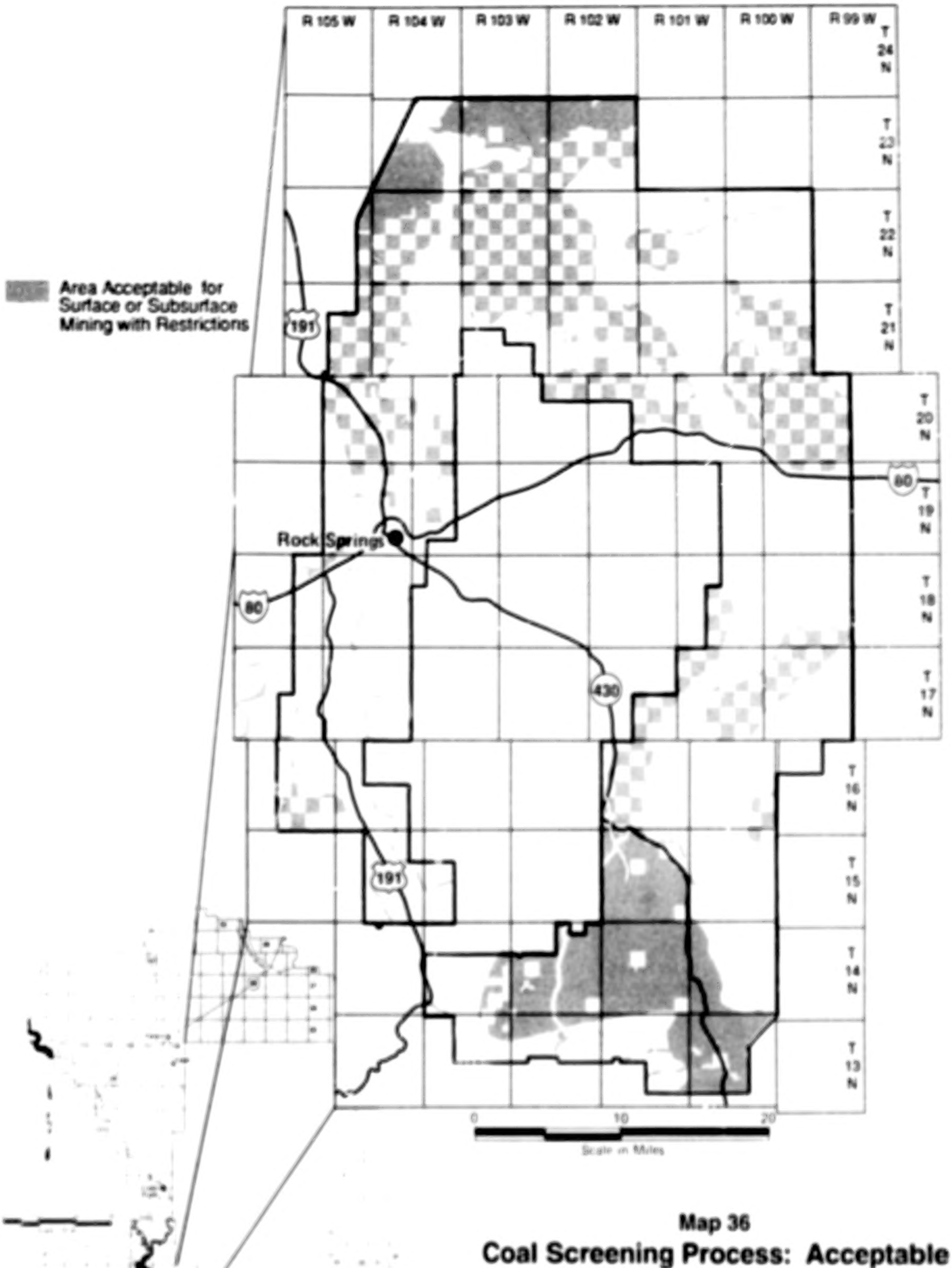
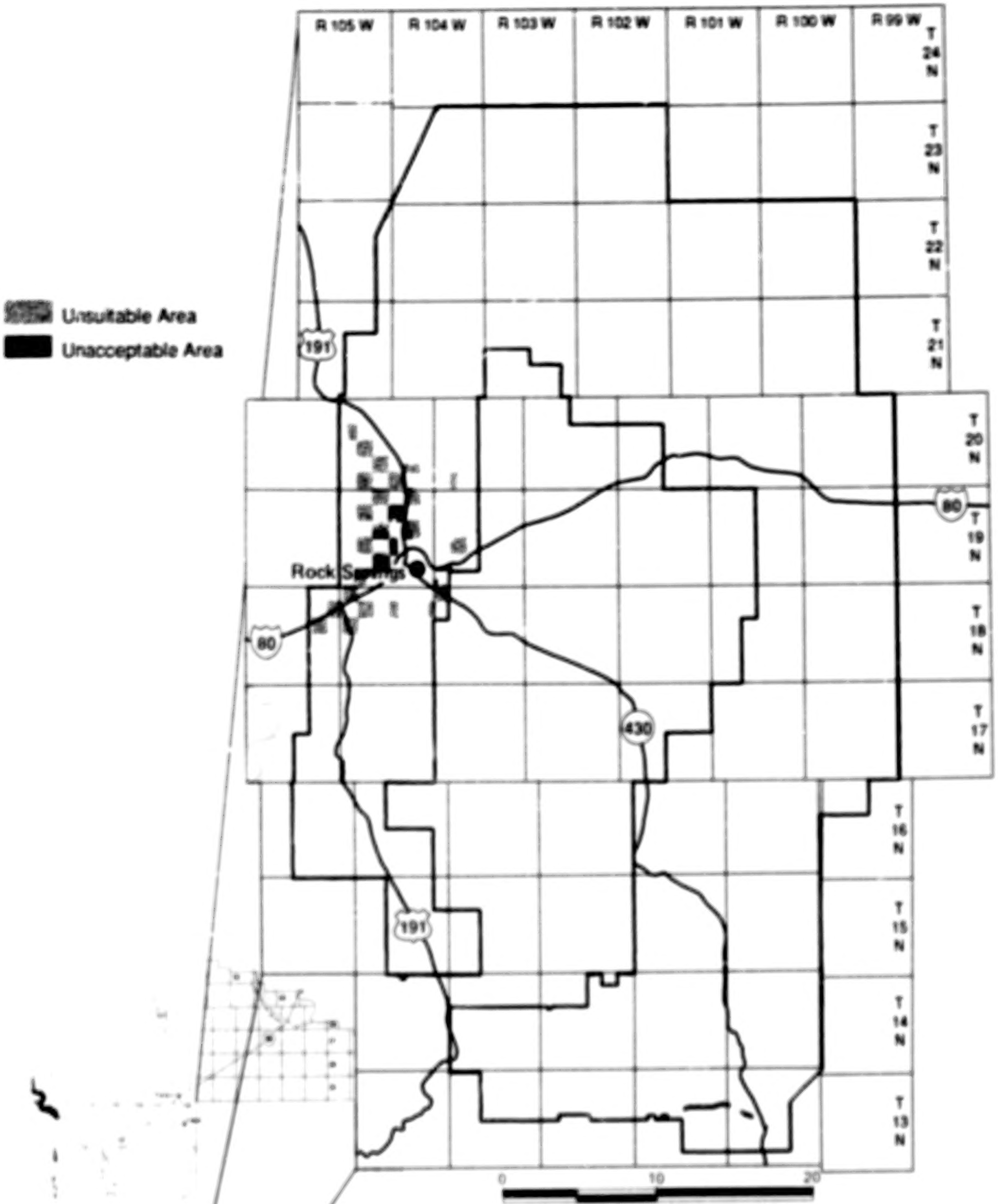


Map 36

Coal Screening Process: Acceptable for Mining with Appropriate Mitigation

Green River RMP



Map 37

Coal Screening Process: Unsuitable and Unacceptable Areas

Green River RMP

APPENDIX 4-1

IDENTIFICATION AND CLASSIFICATION OF BLM-ADMINISTERED PUBLIC LANDS WITHIN THE GREEN RIVER RESOURCE MANAGEMENT PLAN PLANNING AREA DETERMINED TO MEET THE WILD AND SCENIC RIVERS ELIGIBILITY CRITERIA

APPENDIX 4-1

IDENTIFICATION AND CLASSIFICATION OF BLM-ADMINISTERED PUBLIC LANDS WITHIN THE GREEN RIVER RESOURCE MANAGEMENT PLAN PLANNING AREA DETERMINED TO MEET THE WILD AND SCENIC RIVERS ELIGIBILITY CRITERIA

(September 1992)

BLM-Administered Public Land Parcel Number	*Length of Waterway Across BLM Land Parcel, in Miles*	*Name of Waterway or Waterway Review Segment, and Location of BLM-Administered Public Land Parcel*	*Distance to Next BLM Land Parcel, in Miles*	*Notes/Description/Outstandingly Remarkable Values of BLM-Administered Public Land Parcel*	*Tentative Classification of Waterway Across BLM-Administered Public Land Parcel*
		LITTLE RED CREEK (Part of Red Creek Unit)		**Outstandingly remarkable values of the BLM-administered lands in the waterway review segment include scenic; the red eroded geologic features are remarkable scenic badlands, which is unusual in this area. The watershed is relatively untouched and pristine.**	
1	0.5	R. 103 W., T. 12 N., Section 18, from border of state land northwest to private land border.	2.0	Low riparian, two 2-tracks in waterway corridor; one 2-track crosses creek.	Scenic
2	1.0	R. 104 W., T. 12 N., Section 12, from border of private land north to border of private land in Section 1.	0.2	Low riparian, road parallels entire east bank of creek through BLM-administered parcel and crosses creek; seismic line parallels west bank and crosses creek, 1.4 mile is part of public water reserve.	Recreational
3	0.7	R. 104 W., T. 12 N., Section 1, from border of private land northwest to border of private land, R. 104 W., T. 13 N., Section 35.	End of waterway segment reviewed	Low riparian, adjacent private lands within waterway corridor; road and two 2-tracks in corridor parallel both banks.	Recreational
Total Miles Across BLM Lands	2.2	**TOTAL LENGTH OF WATERWAY SEGMENT REVIEWED (miles)**	4.4		
	50%	**% BLM JURISDICTION OF WATERWAY SEGMENT REVIEWED**			

BLM-Administered Public Land Parcel Number	*Length of Waterway Across BLM Land Parcel, in Miles*	*Name of Waterway, or Waterway Review Segment, and Location of BLM-Administered Public Land Parcel*	*Distance to Next BLM Land Parcel, in Miles)*	*Notes Description Outstandingly Remarkable Values of BLM-Administered Public Land Parcel*	*Tentative Classification of Waterway Across BLM-Administered Public Land Parcel*
		JUNE CREEK (Part of Red Creek Unit)		**Outstandingly remarkable values of BLM-administered lands in the waterway review segment include scenic; the red eroded geologic features are remarkable scenic badland, which is unusual in this area. The watershed is relatively untouched and pristine.**	
1	2.6	R. 104 W., T. 12 N., Section 9, from border of state land north to junction with Red Creek, R. 104 W., T. 13 N., Section 34	End of Waterway Segment Reviewed	Low-moderate riparian; 2-track parallels entire west bank of creek; four 2-track crossings of creek	Recreational
Total Miles Across BLM Lands	2.6	**TOTAL LENGTH OF WATERWAY SEGMENT REVIEWED (miles)**	2.6		
	100%	**% BLM JURISDICTION OF WATERWAY SEGMENT REVIEWED**			

		BEEF STEER CREEK (part of Red Creek Unit)		**Outstandingly remarkable values of BLM-administered lands in the waterway review segment include scenic; the red eroded geologic features are remarkable scenic badlands which is unusual in this area. The watershed is relatively untouched and pristine.**	
1	4.0	R. 105 W., T. 13 N., Section 12, from headwaters southeast to junction with Red Creek, R. 104 W., T. 13 N., Section 13	End of Waterway Segment Reviewed	Low-moderate riparian; 3 seismic crossings; four 2-track access points on west side of creek	Scenic
Total Miles Across BLM Lands	4.0	**TOTAL LENGTH OF WATERWAY SEGMENT REVIEWED (miles)**	4.0		
	100%	**% BLM JURISDICTION OF WATERWAY SEGMENT REVIEWED**			

BLM-Administered Public Land Parcel Number	*Length of Waterway Across BLM Land Parcel, in Miles*	*Name of Waterway, or Waterway Review Segment, and Location of BLM-Administered Public Land Parcel*	*Distance to Next BLM Land Parcel, in Miles*	*Notes/Description/Outstandingly Remarkable Values of BLM-Administered Public Land Parcel*	*Tentative Classification of Waterway Across BLM-Administered Public Land Parcel*
		RED CREEK (Part of Red Creek Unit)		**Outstandingly remarkable values of BLM-administered lands in the waterway review segment include scenic; the red eroded geologic features are remarkable scenic badlands which is unusual in this area. The watershed is relatively untouched and pristine.**	
1	0.8	R. 103 W., T. 12 N., Section 4, from headwaters spring, north to border of state land, R. 103 W., T. 13 N., Section 34	0.3	Adjacent state lands within waterway corridor. Low riparian. Heavily timbered in corridor with stock trails cut to creek. Beaver pond stocked with Colorado River cutthroat trout. Two-track in corridor on ridgetop above creek.	Recreational
2	0.2	R. 103 W., T. 13 N., Section 34, from border of state land northwest to border of state land, Section 33	3.0	Low-moderate riparian. Heavily timbered in corridor. Series of dry historic beaver ponds. Two-track in corridor on ridgetop above creek.	Recreational
3	0.25	R. 104 W., T. 13 N., Section 36, from border of state land west to border of state land	0.4	Low-moderate riparian, 2-track parallels south bank of creek.	Recreational
4	0.3	R. 104 W., T. 13 N., Section 35, from border of private land northwest to border of private land, Section 34	0.5	Adjacent low riparian private lands within waterway corridor; 2-track parallels creek on north 0.2 mile.	Scenic
5	3.5	R. 104 W., T. 13 N., Section 34, from border of private land west to border of state land, Section 31	0.8	Low riparian, two 2-track crossings, two 2-tracks parallel south bank of creek along 20% of distance through BLM-administered parcel. 1 seismic crossing.	Recreational
6	2.6	R. 105 W., T. 12 N., Section 1, from border of state land southwest to border of private land Section 15	1.0	Low riparian, no crossings, eight 2-track access points on both sides of creek through BLM-administered parcel.	Scenic
7	0.6	R. 105 W., T. 12 N., Section 22, from border of private land south to Wyoming-Utah state line and private land border	End of Waterway Segment Reviewed	Low riparian; road crosses creek and parallels 50% of creek through BLM-administered parcel, ranch 3/4 mile SE of lower end of BLM-administered parcel.	Recreational
Total Miles Across BLM Lands	8.25	**TOTAL LENGTH OF WATERWAY SEGMENT REVIEWED (miles)**	14.25		
	58%	**% BLM JURISDICTION OF WATERWAY SEGMENT REVIEWED**			

BLM-Administered Public Land Parcel Number	*Length of Waterway Across BLM Land Parcel, in Miles*	*Name of Waterway, or Waterway Review Segment, and Location of BLM-Administered Public Land Parcel*	*Distance to Next BLM Land Parcel, in Miles*	*Notes/Description/Outstandingly Remarkable Values of BLM-Administered Public Land Parcel*	*Tentative Classification of Waterway Across BLM-Administered Public Land Parcel*
		CURRANT CREEK (part of Currant Creek Unit)		**Outstandingly remarkable values of BLM-administered lands in the waterway review segment include fisheries; there are populations of the Colorado River cutthroat trout in the watershed. This candidate species is a pure strain.**	
1	1.2	R. 106 W., T. 13 N., Section 1, from border of state land north to border of state land, R. 106 W., T. 14 N., Section 36	0.6	Moderate riparian, no roads in waterway corridor through BLM-administered land; nearest access is 2-track parallel to creek 1/2 mile west on bench	Wild
2	0.5	R. 106 W., T. 14 N., Section 36, from border of state land north to border of state land, Section 25	0.8	Moderate riparian, no roads in waterway corridor through BLM-administered land; nearest access is 2-track parallel to creek 1/2 mile west on bench	Wild
3	0.8	R. 106 W., T. 14 N., Section 25, from border of state land northwest to border of state land, Section 24	1.5	Moderate riparian, one 2-track parallels east bank of creek in lower end of BLM-administered parcel, public water reserve covers 80% of creek through BLM-administered land; adjacent state lands within waterway corridor	Scenic
4	2.0	R. 106 W., T. 14 N., Section 11, from border of state land northwest to border of private land, Section 10	1.25	Moderate to heavy riparian, 2-track parallels 1.5 miles of creek on north side, 1.4 mile of creek through BLM-administered land covered by public water reserve.	Scenic
5	0.5	R. 106 W., T. 14 N., Section 5, from border of state land west to border of private land, Section 31	2.0	Moderate to heavy riparian, entire creek through BLM-administered land is covered by public water reserve, one 2-track parallels entire distance of creek through BLM-administered land and crosses once, another 2-track follows opposite side of creek along 50% of distance through BLM-administered land	Scenic
6	0.5	R. 107 W., T. 14 N., Section 1, from border of private land northwest to border of private land	4.5	Heavy riparian, 2-track parallels both sides creek, adjacent private lands within waterway corridor at each end (up and downstream) of BLM-administered parcel, ranch approximately 1/2 mile downstream from BLM-administered parcel	Scenic
7	0.6	R. 107 W., T. 15 N., Section 30, from border of private land west to border of private land	0.2	Low-moderate riparian, road parallels north bank of creek entire distance through BLM-administered parcel, one 2-track access to creek	Recreational

BLM-Administered Public Land Parcel Number	*Length of Waterway Across BLM Land Parcel in Miles*	*Name of Waterway or Waterway Review Segment and Location of BLM-Administered Public Land Parcel*	*Distance to Next BLM Land Parcel in Miles*	*Notes Description Outstandingly Remarkable Values of BLM-Administered Public Land Parcel*	*Tentative Classification of Waterway Across BLM-Administered Public Land Parcel*
8	0.2	R. 107 W., T. 15 N., Section 30, from border of private land west to border of Flaming Gorge NRA	End of Waterway Segment Reviewed	Low-moderate riparian, road and 2-track parallel entire distance of creek through BLM-administered parcel on north side	Recreational
Total Miles Across BLM Lands	6.3	**TOTAL LENGTH OF WATERWAY SEGMENT REVIEWED (miles)**	17.15		
	17%	**% BLM JURISDICTION OF WATERWAY SEGMENT REVIEWED**			

BLM-Administered Public Land Parcel Number	*Length of Waterway Across BLM Land Parcel in Miles*	*Name of Waterway or Waterway Review Segment and Location of BLM-Administered Public Land Parcel*	*Distance to Next BLM Land Parcel in Miles*	*Notes Description Outstandingly Remarkable Values of BLM-Administered Public Land Parcel*	*Tentative Classification of Waterway Across BLM-Administered Public Land Parcel*
		DRIPPING SPRINGS FORK, CURRANT CREEK (part of Currant Creek Unit)		**Outstandingly remarkable values of BLM-administered lands in the waterway review segment include fisheries; there are populations of the Colorado River cutthroat trout in the watershed. This candidate species is a pure strain.**	
1	2.0	R. 105 W., T. 13 N., Section 7, from headwaters north to border of state land, R. 106 W., T. 14 N., Section 36	End of Waterway Segment Reviewed	Heavy riparian, 1 powerline crossing, 2-track parallels upstream half (southern) of creek. 1 mile of creek across BLM-administered land is covered by public water reserve, adjacent state lands within waterway corridor	Scenic
Total Miles Across BLM Lands	2.0	**TOTAL LENGTH OF WATERWAY SEGMENT REVIEWED (miles)**	2.0		
	100%	**% BLM JURISDICTION OF WATERWAY SEGMENT REVIEWED**			

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BLM Administered Public Land Parcel Number	*Length of Waterway Across BLM Land Parcel (in Miles)*	*Name of Waterway or Waterway Review Segment and Location of BLM Administered Public Land Parcel*	*Distance to [illegible] of BLM Land Parcel (in Miles)*	*Notes/Description Outstandingly Remarkable Values of BLM Administered Public Land Parcel*	*Tentative Classification of Waterway Across BLM Administered Public Land Parcel*
		EAST FORK CURRANT CREEK (part of currant Creek Unit)		**Outstandingly remarkable values of BLM-administered lands in the waterway review segment include fisheries; there are populations of the Colorado River cutthroat trout in the watershed. This candidate species is a pure strain.**	
1	1.0	R. 105 W., T. 13 N., Section 7, from headwaters north to junction with Currant Creek, R. 106 W., T. 13 N., Section 1	End of Waterway Segment Reviewed	Moderate-heavy riparian, 1 powerline crossing, one 2-track parallels west bank of creek	Scenic
Total Miles Across BLM Lands	1.0	**TOTAL LENGTH OF WATERWAY SEGMENT REVIEWED (miles)**	1.0		
	100%	**% BLM JURISDICTION OF WATERWAY SEGMENT REVIEWED**			

		MIDDLE FORK CURRANT CREEK (part of Currant Creek Unit)		**Outstandingly remarkable values of BLM-administered lands in the waterway review segment include fisheries; there are populations of the Colorado River cutthroat trout in the watershed. This candidate species is a pure strain.**	
1	2.0	R. 105 W., T. 13 N., Section 19, northwest to border of state land, R. 106 W., T. 13 N., Section 12	End of Waterway Segment Reviewed	Moderate-heavy riparian, 1 powerline crossing, one 2-track parallels lower 50% in the downstream portion of the west bank	Scenic
Total Miles Across BLM Lands	2.0	**TOTAL LENGTH OF WATERWAY SEGMENT REVIEWED (miles)**	2.0		
	100%	**% BLM JURISDICTION OF WATERWAY SEGMENT REVIEWED**			

BLM-Administered Public Land Parcel Number	*Length of Waterway Across BLM Land Parcel, in Miles*	*Name of Waterway, or Waterway Review Segment, and Location of BLM-Administered Public Land Parcel*	*Distance to Next BLM Land Parcel, in Miles*	*Notes/Description/Outstandingly Remarkable Values of BLM-Administered Public Land Parcel*	*Tentative Classification of Waterway Across BLM-Administered Public Land Parcel*
		WEST FORK CURRANT CREEK (part of Currant Creek Unit)		**Outstandingly remarkable values of BLM-administered lands in the waterway review segment include fisheries, there are populations of the Colorado River cutthroat trout in the watershed. This candidate species is a pure strain.**	
1	0.25	R. 106 W., T. 13 N., Section 14, from border of state land north to border of state land.	0.3	Low riparian, one 2-track parallels west bank of creek.	Recreational
2	0.2	R. 106 W., T. 13 N., Section 11, from border of state land north to border of state land.	0.25	Low riparian, no roads within corridor through BLM-administered parcel; nearest access road 1/2 mile west parallels creek on ridge.	Wild
3	0.3	R. 106 W., T. 13 N., Section 12, from border of state land, north to border of state land.	End of Waterway Segment Reviewed	Low riparian,; one 2-track access at lower end of BLM-administered parcel.	Recreational
Total Miles Across BLM Lands	0.75	**TOTAL LENGTH OF WATERWAY SEGMENT REVIEWED (miles)**	1.3		
	58%	**% BLM JURISDICTION OF WATERWAY SEGMENT REVIEWED**			

BLM-Administered Public Land Parcel Number	*Length of Waterway Across BLM Land Parcel, in Miles*	*Name of Waterway, or Waterway Review Segment, and Location of BLM-Administered Public Land Parcel*	*Distance to Next BLM Land Parcel, in Miles*	*Notes/Description/Outstandingly Remarkable Values of BLM-Administered Public Land Parcel*	*Tentative Classification of Waterway Across BLM-Administered Public Land Parcel*
		PACIFIC CREEK		**Outstandingly remarkable values of BLM-administered lands the waterway review segment include historic; the Oregon, Mormon Pioneer, California, and Pony Express National Historic Trails parallel much of Pacific Creek. There were many pioneer camping spots along the creek. A Pony Express station was located immediately beside Pacific Springs.**	
1	3.5	R. 101 W., T. 27 N., Section 5, from headwaters west to border of private lands, R. 102 W., T. 27 N., Section 1.	2.0	Low riparian, road 2-track along entire length and right next to creek; historic trail within waterway corridor.	Recreational
2	4.0	R. 102 W., T. 27 N., Section 11, from border of private land southwest to border of private land, Section 21.	1.0	Low-moderate riparian, three 2-track crossings, dam/structure in channel, 2-tracks on both sides of creek upstream half (northeast portion) and 1 on downstream half, other 2-tracks within waterway corridor; historic trail within waterway corridor.	Recreational
3	0.5	R. 102 W., T. 27 N., Section 29, from border of private land southwest to border of private land.	0.8	Moderate-heavy riparian, two 2-tracks within waterway corridor parallel north bank of creek.	Scenic
4	0.2	R. 102 W., T. 27 N., Section 31, from border of private land southwest to border of private land.	1.0	Low riparian, road parallels north bank of creek within waterway corridor.	Scenic
5	0.2	R. 103 W., T. 26 N., Section 1, from border of state land west to border of state land.	0.25	Low riparian, 2 seismic crossings of creek; adjacent state lands within waterway corridor.	Scenic
6	0.3	R. 103 W., T. 26 N., Section 2, from border of state land southwest to border of state land.	0.6	Low riparian, old railroad grade access 1/2 mile north of creek, no roads within corridor; adjacent state lands within waterway corridor.	Wild
7	0.1	R. 103 W., T. 26 N., Section 2, from border of state land southwest to border of state land.	0.2	Low riparian: railroad grade within waterway corridor; adjacent state lands within waterway corridor.	Scenic
8	0.1	R. 103 W., T. 26 N., Section 2, from border of state land southwest to border of state land.	1.0	Low riparian, 1 seismic crossing; railroad grade within waterway corridor; adjacent state lands within waterway corridor.	Recreational
9	0.1	R. 103 W., T. 26 N., Section 10, from border of state land south to border of state land.	0.1	Low riparian, railroad grade crosses creek; adjacent state lands within waterway corridor.	Recreational

BLM-Administered Public Land Parcel Number	*Length of Waterway Across BLM Land Parcel, in Miles*	*Name of Waterway, or Waterway Review Segment, and Location of BLM-Administered Public Land Parcel*	*Distance to Next BLM Land Parcel (in Miles)*	*Notes Description/Outstandingly Remarkable Values of BLM-Administered Public Land Parcel*	*Tentative Classification of Waterway Across BLM-Administered Public Land Parcel*
10	0.2	R. 103 W., T. 26 N., Section 10, from border of state land southwest to border of state land	2.0	Low riparian, railroad grade within waterway corridor, 2-track crosses creek, one other 2-track to creek, adjacent state lands within waterway corridor	Recreational
11	0.1	R. 103 W., T. 26 N., Section 17, from border of state land southwest to border state land	1.0	Low riparian, railroad grade within waterway corridor, two 2-tracks within waterway corridor and one 2-track along creek through BLM-administered parcel, adjacent state lands within waterway corridor	Recreational
12	0.1	R. 103 W., T. 26 N., Section 19, from border of state land southwest to border of state land	0.3	Low riparian, one 2-track within waterway corridor	Scenic
13	0.3	R. 103 W., T. 26 N., Section 19, from border of state land southwest to border of state land	0.2	Low riparian, one 2-track within waterway corridor	Recreational
14	0.1	R. 104 W., T. 26 N., Section 24, from border of state land southwest to border of state land	1.5	Low riparian, one 2-track parallels north bank of creek	Recreational
15	0.2	R. 104 W 9, T. 26 N., Section 26, from border of state land west to border of state land	0.1	Low riparian, railroad grade within waterway corridor, 3 two-tracks in corridor (1 crosses creek)	Recreational
16	12.0	R. 104 W., T. 26 N., Section 26, from border of state land southwest to border of Bureau of Reclamation lands, R. 105 W., T. 25 N., Section 23	End of Waterway Segment Reviewed	Low riparian, railroad grade within waterway corridor entire length of creek through BLM-administered parcel, railroad crosses one time, 2-tracks parallel entire creek distance through BLM-administered parcel, 2 road and three 2-track crossings of the creek	Recreational
Total Miles Across BLM Lands	22.0	**TOTAL LENGTH OF WATERWAY SEGMENT REVIEWED (miles)**	34.05		
	65%	**% BLM JURISDICTION OF WATERWAY SEGMENT REVIEWED**			

BLM-Administered Public Land Parcel Number	*Length of Waterway Across BLM Land Parcel, in Miles*	*Name of Waterway, or Waterway Review Segment, and Location of BLM-Administered Public Land Parcel*	*Distance to Next BLM Land Parcel (in Miles)*	*Notes/Description/Outstandingly Remarkable Values of BLM-Administered Public Land Parcel*	*Tentative Classification of Waterway Across BLM-Administered Public Land Parcel*
		NORTH FORK OF BEAR CREEK		**Outstandingly remarkable values of BLM-administered lands in the waterway review segment include geologic, scenic, recreation, and scientific. The creek flows through the Honeycomb Buttes Wilderness Study Area. The geology of the area is rare and the contrasting colors are scenic. Popular for recreationists and good opportunities for studying high plains desert ecology. The waterway review segment is intermittent.**	
1	12.0	R. 100 W., T. 27 N., Section 1, from head waters southeast to Junction with Bear Creek R. 98 W., T. 25 N., Section 5	End of Waterway Segment Reviewed	Very low riparian; 1 faint 2-track within waterway corridor for approximately 1 mile at upstream end, and one 2-track road crosses at downstream end of BLM-administered parcel.	Wild
Total Mi's. Across BLM Lands	12.0	**TOTAL LENGTH OF WATERWAY SEGMENT REVIEWED (miles)**	12.0		
	100%	**% BLM JURISDICTION OF WATERWAY SEGMENT REVIEWED**			

BLM-Administered Public Land Parcel Number	*Length of Waterway Across BLM Land Parcel, in Miles*	*Name of Waterway, or Waterway Review Segment, and Location of BLM-Administered Public Land Parcel*	*Distance to Next BLM Land Parcel, in Miles*	*Notes/Description/Outstandingly Remarkable Values of BLM-Administered Public Land Parcel*	*Tentative Classification of Waterway Across BLM-Administered Public Land Parcel*
		CANYON CREEK		**Outstandingly remarkable values of BLM-administered lands in the waterway review segment include scenic and historic. The creek has steep slopes bordering the toe slopes of Pine Mountain giving scenic contrasting views of geology and vegetation. The creek is along the route used by Western outlaws to reach hideouts in Brown's Park, in Colorado. Also adjacent to the diamond fields of the Great Diamond "Hoax" at the base of Diamond Peak, just south of the Wyoming state line.**	
1	1.3	R. 103 W., T. 12 N., Section 22, from headwaters northeast to border of private land, Section 24	0.7	Low-moderate riparian; road and 2-track parallel 50% of creek distance through BLM-administered parcel; 3 seismic crossings; adjacent state lands within corridor at upstream end of BLM-administered parcel; adjacent private lands within corridor at downstream end of BLM-administered parcel	Recreational
2	0.25	R. 102 W., T. 12 N., Section 18, from border of private land northeast to border of private land	0.5	Low riparian; two 2-tracks to creek; road parallels south side of creek (within 1/4 mile) through BLM-administered parcel	Recreational
3	0.2	R. 102 W., T. 12 N., Section 18, from border of private land northeast to border of state land	1.0	Low riparian; 2-track parallels creek on south side	Recreational
4	1.1	R. 102 W., T. 12 N., Section 17, from border of state land southeast to border of private land, Section 16 (SE corner)	1.0	Low-riparian; road parallels north side of creek through BLM-administered parcel; 1 old irrigation diversion; 2 roads and 3 seismic crossings	Recreational
5	1.1	R. 102 W., T. 12 N., Section 23, from border of private land east to border of private land	0.7	Low-moderate riparian; road parallels north side of creek through BLM-administered parcel; 1 new irrigation diversion	Recreational
6	0.6	R. 102 W., T. 12 N., Section 13, from border of private land east to border of private land, R. 101 W., T. 12 N., Section 18	1.6	Moderate riparian; road crosses creek and parallels north side of creek through BLM-administered parcel	Recreational
7	0.1	R. 101 W., T. 12 N., Section 20, from border of state land southeast to border of private land	0.6	Moderate riparian; bench road parallels north side of creek (1/8 mile from creek) through BLM-administered parcel	Recreational

BLM-Administered Public Land Parcel Number	*Length of Waterway Across BLM Land Parcel, in Miles*	*Name of Waterway, or Waterway Review Segment, and Location of BLM-Administered Public Land Parcel*	*Distance to Next BLM Land Parcel (in Miles)*	*Notes/Description/Outstandingly Remarkable Values of BLM-Administered Public Land Parcel*	*Tentative Classification of Waterway Across BLM-Administered Public Land Parcel*
8	0.4	R. 101 W., T. 12 N., Section 21 from border of private land southeast to Wyoming-Colorado state line	End of Waterway Segment Reviewed	Moderate-heavy riparian, no roads in waterway corridor, nearest access 2-track to creek at upstream end of BLM-administered parcel	Wild
Total Miles Across BLM Lands	5.05	**TOTAL LENGTH OF WATERWAY SEGMENT REVIEWED (miles)**	11.15		
	45%	**% BLM JURISDICTION OF WATERWAY SEGMENT REVIEWED**			

BLM Administered Public Land Parcel Number	*Length of Waterway Across BLM Land Parcel in Miles*	*Name of Waterway or Waterway Review Segment and Location of BLM Administered Public Land Parcel*	*Distance to Next BLM Land Parcel in Miles*	*Notes Describing Outstandingly Remarkable Values of BLM Administered Public Land Parcel*	*Tentative Classification of Waterway Across BLM Administered Public Land Parcel*
		SWEETWATER RIVER		**Outstandingly remarkable values of BLM-administered lands in the waterway review segment include scenic, historic, and recreational. The river played a major role in the Oregon, Mormon Pioneer, California, and Pony Express National Historic Trails. It was crossed 9 times by the trails. The rugged Sweetwater Canyon is only accessible by foot. Campsites along the river are very popular recreation areas.**	
1	0.6	R. 102 W., T. 30 N., Section 19, from Bridger Forest border south to beginning of Sweetwater Canyon, Section 19	0	Heavy riparian, one road leading to Guard Station Campground and network of roads in the campground. Recreational usage	Recreational
2	3.0	R. 102 W., T. 30 N., Section 19 from beginning of Sweetwater Canyon to the Sweetwater Campground	0	No access to Canyon other than foot, three 2-tracks to rim of Canyon from west, road access to Sweetwater Campground at southern end of BLM-administered parcel	Wild
3	2.8	R. 102 W., T. 29 N., Section 5, from Sweetwater Campground southeast to border of state lands, Section 16	[illegible]	Heavy riparian, road access into BLM-administered parcel and road parallels 0.1 mile of the river within this parcel	Recreational
4	0.6	R. 102 W., T. 29 N., Section 27, from border of private land SE to border of state lands	0.5	Heavy riparian, nearest access 2-track 1/2 mile south of BLM-administered parcel, no roads in corridor	Wild
5	0.5	R. 102 W., T. 29 N., Section 34, from border of state land south to border of private land	0.25	Heavy riparian, 2-track parallels west bank, one 2-track access from east, two 2-tracks access from west	Scenic
6	1.0	R. 102 W., T. 28 N., Section 4, from border of private land south to border of private land	0.2	Heavy riparian, no roads in corridor, nearest access is 2-track 1/4 mile above north end of BLM-administered parcel	Wild
7	1.2	R. 102 W., T. 28 N., Section 10, from border of private land southeast to border of private land Section 11	1.2	Heavy riparian, no roads in corridor, nearest access is parallel road 1/4 mile east of river	Wild
8	0.6	R. 101 W., T. 28 N., Section 19, from border of private land southeast to border of private land	8.5	Heavy riparian, two 2-tracks in corridor, adjacent private lands within corridor	Scenic
9	[illegible]	R. 100 W., T. 28 N., Section 29, from border of state land northeast to border of private land Section 27	0.1	Moderate-heavy riparian, two 2-tracks in corridor each side of river	Scenic

BLM Administered Public Land Parcel Number	*Length of Waterway Across BLM Land Parcel (in Miles)*	*Name of Waterway (or Waterway Review Segment) and Location of BLM-Administered Public Land Parcel*	*Distance to Next BLM Land Parcel (in Miles)*	*Notes/Description/Outstandingly Remarkable Values of BLM-Administered Public Land Parcel*	*Tentative Classification of Waterway Across BLM-Administered Public Land Parcel*
10	0.3	R. 100 W., T. 28 N., Section 29, from border of state land northeast to border of private land, Section 26.	End of Waterway Segment Reviewed	Heavy riparian, diversion and irrigation ditch along north bank of river, two 2-tracks in corridor, adjacent private lands within corridor.	Recreational
Total Miles Across BLM Lands	13.1	**TOTAL LENGTH OF WATERWAY SEGMENT REVIEWED (miles)**	29.05		
	45%	**% BLM JURISDICTION OF WATERWAY SEGMENT REVIEWED**			

		BIG SANDY RIVER		Outstandingly remarkable values of BLM-administered public lands in the waterway review segment include historic. The river played a major role in the Oregon, Mormon Pioneer, California, and Pony Express National Historic Trails as a major campsite. Jedediah Smith's party, which discovered South Pass traveling east to west, crossed the upper reaches of the river.	
1	1.5	R. 104 W., T. 30 N., Section 5, from Bridger Forest border south to border of state land, Section 8.	2.0	Heavy riparian, one faint 2-track to river at north end of BLM-administered parcel.	Wild
		There are a total of 36 BLM-administered land parcels along the 74.6-mile review segment of the Big Sandy River. The 36 BLM-administered parcels represent a total of 16.15 miles of the review segment. Only the one parcel (involving 1.5 miles of the waterway) was determined to meet the WSR eligibility criteria.			
Total Miles Across BLM Lands	16.15	**TOTAL LENGTH OF WATERWAY SEGMENT REVIEWED (miles)**	74.6		
	22%	**% BLM JURISDICTION OF WATERWAY SEGMENT REVIEWED**			

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BLM-Administered Public Land Parcel Number	*Length of Waterway Across BLM Land Parcel (in Miles)*	*Name of Waterway, or Waterway Review Segment, and Location of BLM-Administered Public Land Parcel*	*Distance to Next BLM Land Parcel (in Miles)*	*Notes/Description/Outstandingly Remarkable Values of BLM-Administered Public Land Parcel*	*Tentative Classification of Waterway Across BLM-Administered Public Land Parcel*
		GREEN RIVER		**Outstandingly remarkable values of BLM-administered lands in the waterway review segment include wildlife, historic, and recreational. The river played a major role in the Oregon, Mormon Pioneer, California, and Pony Express National Historic Trails as it was one of the most dangerous crossings along the trails. Wildlife populations along the Green River are extensive and varied. The river is popular for floating, fishing, camping, and retracing historic expeditions.**	
1	0.25	R. 112 W., T. 28 N., Section 24, from border of private land southeast and west (loop) to border of private land.	1.2	Heavy riparian; cottonwood bottom; 2-track access on west bank of river.	Scenic
2	0.4	R. 112 W., T. 28 N., Section 26, from border of private land southwest to border of private land.	6.0	Heavy riparian; cottonwood bottom; 2 old channels and sandbars; 2-track parallels east side; one 2-track to bottom; adjacent state lands within corridor.	Recreational
3	0.4	R. 112 W., T. 27 N., Section 20, from border of private land southwest to border of private land, Section 29.	0.25	Moderate riparian; U.S. 179 within corridor west of BLM-administered parcel; one parallel 2-track between highway and river.	Recreational
4	0.25	R. 112 W., T. 27 N., Section 31, from border of private land south to border of private land.	1.2	Moderate riparian; two 2-tracks, one on each side of river through BLM-administered parcel.	Recreational
5	0.3	R. 112 W., T. 27 N., Section 31, from border of private land south to border of private land.	6.0	Moderate riparian; U.S. 189 within corridor; adjacent private lands within corridor; bridge crosses river; BLM-administered parcel approximately 1/2 mile north of LaBarge.	Recreational
6	0.25	R. 112 W., T. 26 N., Section 33, from border of private land southwest to border of private and Bureau of Reclamation land forks.	56.0	Moderate-heavy riparian; river splits around island; adjacent private lands within corridor; roads and 2-tracks parallel both banks.	Recreational
7	0.1	R. 107 W., T. 18 N., Section 6, from border of private land southeast to border of private land.	2.0	Moderate riparian; adjacent private lands within corridor; I-80 crosses river approximately 100 yards below BLM-administered parcel; 2-track access to river south side.	Recreational
8	0.5	R. 107 W., T. 18 N., Section 8, from border of private land east to border of private land.	0.9	Low-moderate riparian; adjacent private lands, Union Pacific railroad, and Rio Vista subdivision within corridor.	Recreational

BLM-Administered Public Land Parcel Number	*Length of Waterway Across BLM Land Parcel, in Miles*	*Name of Waterway, or Waterway Review Segment, and Location of BLM-Administered Public Land Parcel*	*Distance to Next BLM Land Parcel, in Miles)*	*Notes/Description/Outstandingly Remarkable Values of BLM-Administered Public Land Parcel*	*Tentative Classification of Waterway Across BLM-Administered Public Land Parcel*
9	0.4	R. 107 W., T. 12 N., Section 16, from border of private land southeast to border of private land.	End of Waterway Segment Reviewed	Low riparian; I-80 within corridor; pipeline or powerline crosses river; 2-track to river both sides.	Recreational
Total Miles Across BLM Lands	2.85	**TOTAL LENGTH OF WATERWAY SEGMENT REVIEWED (miles)**	71.0		
	4%	**% BLM JURISDICTION OF WATERWAY SEGMENT REVIEWED**			

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APPENDIX 4-2

WILD AND SCENIC RIVERS SUITABILITY REVIEW OF BLM-ADMINISTERED PUBLIC LANDS ALONG THE RED CREEK UNIT, CURRANT CREEK UNIT, PACIFIC CREEK, NORTH FORK OF BEAR CREEK, CANYON CREEK, THE SWEETWATER RIVER, THE BIG SANDY RIVER, AND THE GREEN RIVER IN THE GREEN RIVER RESOURCE MANAGEMENT PLAN PLANNING AREA

(September 1992)

PUBLIC INVOLVEMENT DURING THE WILD AND SCENIC RIVERS SUITABILITY REVIEW

After publication of the Draft EIS for the Green River RMP, 38 letters were received commenting on the Wild and Scenic Rivers review. Three letters challenged the proposed interim management of prohibiting or restricting mineral development on BLM-administered public lands that meet the wild and scenic rivers suitability factors; but, in principle, did not oppose either the eligibility or suitability determinations on the BLM-administered lands along the waterway segments reviewed. Thirty-four letters supported the suitability determinations for the BLM-administered lands along the Sweetwater River and encouraged the BLM to include all "eligible" BLM-administered lands as suitable. One letter from Wyoming Governor Mike Sullivan praised the review process for conducting the eligibility and suitability reviews concurrently.

At public meetings, open houses, and briefings held since publication of the Draft EIS for the Green River RMP, there has been neither significant support nor opposition to the eligibility and suitability determinations made during the Wild and Scenic Rivers review.

Table A4-2-1 summarizes the results of the wild and scenic rivers suitability review of BLM-administered public lands that meet the wild and scenic rivers eligibility criteria along waterways in the Green River Resource Area.

RESULTS OF THE WILD AND SCENIC RIVERS SUITABILITY REVIEW OF BLM-ADMINISTERED PUBLIC LANDS ALONG WATERWAYS IN THE GREEN RIVER RESOURCE MANAGEMENT PLAN PLANNING AREA

Red Creek (includes Little Red Creek, June Creek, and Beef Steer Creek)

It was determined that the 12 BLM-administered public land parcels along the Red Creek Unit review segments (including Little Red Creek, June Creek, and Beef Steer Creek) do not meet the wild and scenic river suitability factors and will be given no further consideration for inclusion in the wild and scenic river system. The non-suitable determination is based on (1) The potential conflicts with management and activities conducted on the adjacent (and up or downstream) state and private lands that BLM has no jurisdiction or control over; (2) The inability of the BLM to manage the BLM-administered public lands involved in the context of a Wild and Scenic River because of the interspersed parcels of private and state land; and (3) the BLM-administered public lands do not constitute a worthy addition to the National Wild and Scenic River System. The land and resource values on the BLM-administered lands involved can and will continue to be appropriately managed under all other applicable BLM mandates and regulations for multiple use, sustained yield, and environmental integrity, and should suffer no adverse effects for lack of a wild and scenic river designation.

Currant Creek (includes Dripping Springs, East, Middle, and West Forks)

It was determined that the 14 BLM-administered public land parcels along the Currant Creek Unit review segments (including Dripping Springs, East, Middle, and West Forks) do not meet the wild and scenic river suitability factors and will be given no further consideration for inclusion in the wild and scenic river system. The non-suitable determination is based on (1) The potential conflicts with management and activities conducted on the adjacent (and up or downstream) state and private lands that BLM has no jurisdiction or control over; and (2) The inability of the BLM to manage the BLM-administered public lands involved in the context of a Wild and Scenic River because of the interspersed parcels of private and state land. The land and resource values on the BLM-administered lands involved can and will continue to be appropriately managed under all other applicable BLM mandates and regulations for multiple use, sustained yield, and environmental integrity, and should suffer no adverse effects for lack of a wild and scenic river designation.

Pacific Creek

It was determined that the 16 BLM-administered public land parcels along the Pacific Creek review segment do not meet the wild and scenic river suitability factors and will be given no further consideration for inclusion in the wild and scenic river system. The non-suitable determination is based on (1) The potential conflicts with management and activities conducted on the adjacent (and up or downstream) state and private lands that BLM has no jurisdiction or control over; and (2) The inability of the BLM to manage the BLM-administered public lands involved in the context of a Wild and Scenic River because of the interspersed parcels of private and state land. The land and resource values on the BLM-administered lands involved can and will continue to be appropriately managed under all other applicable BLM mandates and regulations for multiple use, sustained yield, and environmental integrity, and should suffer no adverse effects for lack of a wild and scenic river designation.

North Fork of Bear Creek

It was determined that the BLM-administered public land parcel along the North Fork of Bear Creek review segment does not meet the wild and scenic river suitability factors and will be given no further consideration for inclusion in the wild and scenic river system. The non-suitable determination is based on (1) The BLM-administered lands involved do not constitute a worthy addition to the National Wild and Scenic River System; and (2) the lack of public, state, local, tribal, or Federal interest in designation or nondesignation of any part or all of the creek. The land and resource values on the BLM-administered lands involved can and will continue to be appropriately managed under all other applicable BLM mandates and regulations for multiple use, sustained yield, and environmental integrity, and should suffer no adverse effects for lack of a wild and scenic river designation.

Canyon Creek

It was determined that the 8 BLM administered public land parcels along the Canyon Creek review segment do not meet the wild and scenic river suitability factors and will be given no further consideration for inclusion in the wild and scenic river system. The non-suitable determination is based on (1) The potential conflicts with management and activities conducted on the adjacent (and up or downstream) state and private lands that BLM has no jurisdiction or control over; (2) Potential use conflicts with Canyon Creek which could occur if it is included in the National Wild and Scenic River System; and (3) The inability of the BLM to manage the BLM-administered public lands involved in the context of a Wild and Scenic River because of the interspersed parcels of private and state land. The land and resource values on the BLM-administered lands involved can and will continue to be appropriately managed under all other applicable BLM mandates and regulations for multiple use, sustained yield, and environmental integrity, and should suffer no adverse effects for lack of a wild and scenic river designation.

Sweetwater River

It was determined that 7 of the BLM-administered public land parcels along the upstream portion of the Sweetwater River review segment meet the wild and scenic river suitability factors and should be managed to maintain or enhance their outstandingly remarkable values for any possible future consideration for inclusion in the wild and scenic river system. The suitable determination is based on the uniqueness of the diverse BLM-administered land resources and their regional and national significance, making them worthy of any future consideration for addition to the wild and scenic river system.

The outstanding scenic, historic, and recreational values associated with the BLM-administered lands involved make this a uniquely diverse waterway segment in the region. Within this portion of the review segment, the Sweetwater Canyon and recreational opportunities at the Sweetwater campgrounds are of particularly high value.

Making up over 70% of the lands along this portion of the review segment, the BLM-administered public lands are manageable by BLM as a wild and scenic river under the provisions of the Wild and Scenic River Act. Other factors that complement and enhance this manageability include: (1) The existing public access to existing recreational areas in the review segment; and (2) There are no anticipated conflicts with the management objectives on the intermingled state and private lands within the review segment and the intermingled private lands are not large or extensive parcels as with ownership patterns along other waterways in the RMP planning area.

It was determined that the remaining 3 BLM-administered public land parcels within the downstream portion of the Sweetwater River review segment do not meet the wild and scenic river suitability factors and will be given no further consideration for inclusion in the wild and scenic river system. The non-suitable determination for these three parcels is based on (1) The potential conflicts with management and activities conducted on the adjacent (and up or downstream) state and private lands that BLM has no jurisdiction or control over. The land and resource values on the BLM-administered lands involved can and will continue to be appropriately managed under all other applicable BLM mandates and regulations for multiple use, sustained yield, and environmental integrity, and should suffer no adverse effects for lack of a wild and scenic river designation.

Big Sandy River

It was determined that the one BLM-administered public land parcel along the Big Sandy River review segment does not meet the wild and scenic river suitability factors and will be given no further consideration for inclusion in the wild and scenic river system. The non-suitable determination is based on the inability of the BLM to manage the small amount of BLM-administered public lands involved in the context of a Wild and Scenic River. The land and resource values on the BLM-administered lands involved can and will continue to be appropriately managed under all other applicable BLM mandates and regulations for multiple use, sustained yield, and environmental integrity, and should suffer no adverse effects for lack of a wild and scenic river designation.

Green River

It was determined that the 9 BLM-administered public land parcels along the Green River review segment do not meet the wild and scenic river suitability factors and will be given no further consideration for inclusion in the wild and scenic river system. The non-suitable determination is based on (1) The potential conflicts with management and activities conducted on the adjacent (and up or downstream) state and private lands that BLM has no jurisdiction or control over; and (2) The inability of the BLM to manage the BLM-administered public lands involved in the context of a Wild and Scenic River because of the interspersed parcels of private and state land. The land and resource values on the BLM-administered lands involved can and will continue to be appropriately managed under all other applicable BLM mandates and regulations for multiple use, sustained yield, and environmental integrity, and should suffer no adverse effects for lack of a wild and scenic river designation.

The BLM administers only a minute amount of land (4%) along the 71 miles of the Green River flowing through the Green River Resource Area. However, other Department of the Interior agencies (Bureau of Reclamation and U.S. Fish and Wildlife Service) manage a large part of the remaining lands along the river. In addition, there was quite a bit of public interest for designation of the Green River as a Recreational River. The BLM would participate in any future joint study efforts or wild and scenic river reviews along the Green River.

APPENDIX 4-2

TABLE A4-2-1
SUMMARY OF WILD AND SCENIC RIVERS SUITABILITY REVIEW OF BLM-ADMINISTERED PUBLIC LANDS THAT MEET THE WSR ELIGIBILITY CRITERIA ALONG WATERWAYS IN THE GREEN RIVER RESOURCE AREA
(September 1992)

Waterway Reviewed	Determination	Justification
Red Creek Unit (all BLM land parcels along Red Creek and all other tributaries in the unit)	BLM Lands Not Suitable	Not a worthy addition to WSR System; Land ownership conflicts; Manageability
Currant Creek Unit (all BLM land parcels along Currant Creek and all other tributaries in the unit)	BLM Lands Not Suitable	Land ownership conflicts; Manageability
Pacific Creek	BLM Lands Not Suitable	Land ownership conflicts; Manageability
North Fork of Bear Creek	BLM Lands Not Suitable	Not a worthy addition to WSR System; Lack of interest for designation
Canyon Creek	BLM Lands Not Suitable	Potential use conflicts; Manageability
Green River[1]	BLM Lands Not Suitable	Manageability; Land ownership conflicts
Sweetwater River (upstream portion of review segment)	7 BLM Land Parcels Suitable	Scenic, historic, and recreational values, unique land and resource diversity
Sweetwater River (downstream portion of review segment)	3 BLM Land Parcels Not Suitable	Land ownership conflicts
Big Sandy River	BLM Lands Not Suitable	Manageability

[1] Green River - The portion of the Green River administered by the BLM did not meet the suitability factors based upon the inability of the BLM to manage the BLM-administered lands in the context of a wild and scenic river because of the large and numerous separations of the few BLM-administered parcels by interspersed private and state lands and by other federal lands administered by the BOR and USFWS. However, the BLM would participate in any future joint WSR reviews or studies that may be conducted on the Green River.

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APPENDIX 5-1

STANDARD PRACTICES, BEST MANAGEMENT PRACTICES, AND GUIDELINES FOR SURFACE DISTURBING ACTIVITIES

This appendix describes the practices utilized to mitigate adverse effects caused by surface disturbing activities.

Standard practices applied to surface disturbing activities are statements of guidelines and techniques for establishing statewide (or national) consistency in avoiding and mitigating environmental impacts and resource conflicts. These practices have been developed through field experience, through planning analyses, and from legal or regulatory directives. They emphasize the Bureau's responsibility to ensure that good construction practices are used on public lands, and they apply to all surface disturbing activities.

Best management practices (BMPs) are developed by State agencies in cooperation with Federal agencies to control nonpoint sources of pollution. Section 303(e) of the Clean Water Act and 40 CFR 130.5 require states to maintain a "Water Quality Management Planning Continuing Planning Process." The process must establish procedures for adoption and appeals which, among other items, address BMPs. BMPs are advisory rather than regulatory. BMPs are a key element in a State Nonpoint Source Management Plan with which the Federal Government must comply under Executive Orders 12088 and 12372, and Clean Water Act Sections 319(k) and 301(k). The standard practices in this document are designed to meet the intent of the State's BMPs, and may therefore be subject to revision when the State BMPs are finalized.

The State of Wyoming has released draft lists of BMPs which address silviculture and hydrology, and has issued a policy statement in lieu of BMPs for minerals and oil and gas. The State has not yet released a draft of BMPs for grazing. The State has adopted the policy that the rules and regulations promulgated for oil and gas exploration, mineral extraction, and underground storage tanks shall be considered as the BMPs for these activities.

The Wyoming BLM policy on reclamation assumes that an area can and shall be ultimately reclaimed, and requires that every surface disturbance on public lands receive attention for short-term stabilization and long-term reclamation. Mitigation measures reduce to the extent possible the amount of reclamation that ultimately must take place. The BLM must apply reasonable mitigation and provide guidance for all authorizations. The permit or authorization is the means provided for ensuring that mitigation measures are implemented. Compliance inspections during operations ensure that COAs and/or stipulations are being followed. Compliance inspections upon completion of work ensure that both surface and subsurface reclamation procedures have been properly followed.

Standard practices may develop through the NEPA process into stipulations prior to lease or grant issuance, or they may serve as a basis for COAs. If these practices (or newly developed techniques) are already incorporated into plans for development submitted by a permittee, such plans may be approved without the addition of any COAs. The Bureau would consider any project proposal, however the burden is on the applicant to describe the design and construction techniques. If a project's design, scheduling, and construction techniques can mitigate environmental concerns, construction may be allowed without any COAs.

STANDARD PRACTICES

The following are standard practices applied to surface disturbing activities. These practices are applied, when necessary, to reduce environmental impacts. Large projects may require construction use plans and/or erosion control, revegetation, and restoration plans (Appendix 5-3) which would incorporate these practices. The standard practices in this document are designed to meet the intent of the State's BMPs, and may therefore be subject to revision when the State BMPs are finalized.

Although the headings below address specific resources or types of development, these practices apply to all surface disturbing activities. These practices have been developed through experience working with surface disturbances in the Rock Springs District. Therefore, these are believed to be the best practices available to address a variety of surface disturbance problems. These are not stipulations, but represent concerns that must be addressed in any acceptable proposed surface disturbing activity. Operators are encouraged to review these practices, incorporate them where appropriate, and where possible develop better methods for achieving the same goals.

Air Quality

Bureau actions must comply with all applicable air quality laws, reguations, and standards. As projects are proposed that include possible major sources of air pollutant emissions, air quality protection related stipulations are added to BLM permits and rights-of-way grants. In addition, the BLM coordinates with the Wyoming Department of Environmental Quality/Air Quality Division during the process of analysis. This coordination results in the technical review of applications for permits and(or) identification of additional stipulations to be applied to these permits.

The release of hazardous air contaminants, particularly the emissions from sour natural gas sweetening plants (a process used to remove H_2S from natural gas resulting in the emission of sulfur dioxide), is a public concern. BLM requires industry to prepare analyses of risks involved with the development of sour gas pipelines and treatment facilities. These analyses are designed to project impacts both to the public and to resource values. To aid in achieving air quality goals BLM would consult with the State of Wyoming, the U.S. Forest Service, industry, and the public to ensure that the most technically sound, environmentally balanced, and economically feasible decisions are made.

Additional Stipulations: The emission of fugitive dust shall be limited by all persons handling, transporting, or storing any material to prevent unnecessary amounts of particulate matter from becoming airborne to the extent that ambient air standards described in these regulations are exceeded. Control measures described as follows or any equivalent method shall be considered appropriate for such control:

(i) Use, where possible, of water or chemicals for control of dust in the demolition of existing buildings, or structures, construction operations, the grading of roads or the clearing of land;

(ii) Application of asphalt, oil, water, or suitable chemicals on dirt roads, materials stockpiles, and other surfaces which can give rise to airborne dusts;

(iii) Installation and use of hood, fans and fabric filters to enclose and vent the handling of dusty materials; adequate containment methods shall be employed during sandblasting or other similar operations;

(iv) Covering, at all times when in motion, open bodied trucks, transporting materials likely to give rise to airborne dust;

(v) Conduct of agricultural practices such as tilling of land, application of fertilizers, etc. in such a manner as to prevent dust from becoming airborne;

(vi) The paving of roadways and their maintenance in a clean condition;

(vii) The prompt removal of earth or other material from paved streets onto which earth or other material has been transported by trucking or earth moving equipment, erosion by water, or other means (Wyoming Air Quality Standards and Regulations, 1989, Section 14, Control of Particulate Emissions).

Candidate Plants

Mitigation options to avoid or reduce impacts to rare plants may be limited due to specific habitat requirements, or lack of necessary biological information to make such an assessment. Most of the common techniques such as off-site compensation or habitat restoration have proven largely unsuccessful, although seedbanking is commonly performed in order to attempt off-site propagation. Mitigation plans for areas where impacts to these species cannot be avoided are designed to provide special management actions that minimize the overall impact to the species. However, due to the difficulties of providing successful mitigation options, impacts to candidate plants are considered less than significant only if no net loss of population size or habitat quality results. "No net loss" is intended to mean that BLM must "ensure that [actions authorized, funded, or carried out by BLM]...affecting the habitat of candidate species are carried out in a manner that is consistent with the objectives for managing those species. BLM shall not carry out any actions that would cause any irreversible or irretrievable commitment of resources or reduce the future management options for the species involved" (BLM Manual 6840).

Fire

Guidelines for buffer areas (an area in which fire cannot spread) have been prepared to protect developed facilities and areas of highly erodible soils from the impacts of fire.

If the development is located in a grass community, a 15-foot buffer is recommended.

If the development is located in a sagebrush community, a 25-foot buffer is recommended.

In a juniper/tall brush community (serviceberry, aspen, cottonwood, willow), a 50-foot buffer is recommended.

In a conifer community (lodgepole, spruce fir), a buffer area of 25 feet plus the height of the surrounding trees is recommended.

The emissions which may be created directly by BLM activities are mitigated by applying best management practices. For example, prescribed fires are conducted to reduce emissions by burning only at appropriate fuel moistures and wind speeds (among other factors) which reduce as much as possible the smoke created. All BLM activities that may potentially cause undesirable air quality impacts are also coordinated with the Wyoming Department of Environmental Quality, Air Quality Division (WDEQ,ADQ). Permits to conduct these activities are secured (where necessary) before the activity begins, to insure compliance with all Federal, state, and local air quality laws.

In support of prescribed fire activities, the BLM may temporarily close areas to facilitate operations and to provide for public safety.

Pipelines and Communication Lines

On ditches exceeding 36 inches in width, 6 to 12 inches of surface soil should be salvaged where possible on the entire right-of-way. When pipelines and communication lines are buried, there should be at least 30 inches of backfill on top of the pipe. Backfill should not extend above the original ground level after the fill has settled. Guides for construction and water bar placement are found in "Surface Operating Standards for Oil and Gas Exploration and Development" (USDI 1978). Bladed surface materials would be re-spread upon the cleared route once construction is completed. Disturbed areas that have been reclaimed may need to be fenced when the route is near livestock watering areas.

Existing crowned and ditched roads would be used for access where possible to minimize surface disturbances. Where possible, clearing of pipeline and communication line rights-of-way would be accomplished with the least degree of disturbance to topsoil. Where topsoil removal is necessary, it would be stockpiled (wind-rowed) and re-spread over the disturbance after construction and backfilling are completed. Vegetation removed from the right-of-way would also be required to be re-spread to provide protection, nutrient recycling, and a seed source.

To promote soil stability, the compaction of backfill over the trench would be required (not to extend above the original ground level after the fill has settled). Water bars, mulching, and terracing would be required, as needed, to minimize erosion. Instream protection structures (e.g., drop structures) may be required in drainages crossed by a pipeline to prevent erosion. The fencing of linear disturbances near livestock watering areas may be required.

Reclamation

Current BLM policy recognizes that there may be more than one correct way to achieve successful reclamation, and a variety of methods may be appropriate to the varying circumstances. BLM should continue to allow applicants to use their own expertise in recommending and implementing construction and reclamation projects. These allowances still hold the applicant responsible for final reclamation standards of performance.

BLM reclamation goals emphasize: 1) protection of existing native vegetation; 2) minimal disturbance of existing environment; 3) soil stabilization through establishment of ground cover; and 4) establishment of native vegetation consistent with land use planning.

All reclamation is expected to be accomplished as soon as possible after the disturbance occurs with efforts continuing until a satisfactory revegetation cover is established and the site is stabilized (3 to 5 years).

Only areas needed for construction would be allowed to be disturbed. Reclamation (by the lessee or grant holder) would be initiated as soon as possible after a disturbance occurs.

On all areas to be reclaimed, seed mixtures would be required to be site-specific, composed of native species, and would be required to include species promoting soil stability. A pre-disturbance species composition list must be developed for **each** site if the project encompasses an area where there are several different plant communities present. Livestock palatability and wildlife habitat needs would be given consideration in seed mix formulation. BLM guidance for native seed use is BLM Manual 1745 (Introduction, Transplant, Augmentation, and Reestablishment of Fish, Wildlife, and Plants), and Executive Order No. 11987 (Exotic Organisms).

Interseeding, secondary seeding, or staggered seeding may be required to accomplish revegetation objectives. During rehabilitation of areas in important wildlife habitat, provision would be made for the establishment of native browse and forb species, if determined to be beneficial for the habitat affected. Follow-up seeding or corrective erosion control measures may be required on areas of surface disturbance which experience reclamation failure.

Trees, shrubs, and ground cover (not to be cleared from rights-of-way) would require protection from construction damage. Backfilling to preconstruction condition (in a similar sequence and density) would be required. The restoration of normal surface drainage would also be required.

Any mulch used would be free from mold, fungi, or noxious weed seeds. Mulch may include native hay, small grain straw, wood fiber, live mulch, cotton, jute, synthetic netting, and rock. Straw mulch should contain fibers long enough to facilitate crimping and provide the greatest cover.

The grantee or lessee would be responsible for the control of all noxious weed infestations on surface disturbances. Aerial application of chemicals would be prohibited within 1/4 mile of special status plant locations, and hand application would be prohibited within 500 feet. Control measures would adhere to those allowed in the Rock Springs District Noxious Weed Control EA (USDI 1982a) or the Regional Northwest Area Noxious Weed Control Program EIS (USDI 1987). Herbicide application would be monitored by the BLM authorized officer.

Roads

Roads would be constructed as described in BLM Manual 9113. New main artery roads would be designed to reduce sediment, salt, and phosphate loading to the Green River. Where necessary, running surfaces of the roads would be graveled if the base does not already contain sufficient aggregate.

Existing roads would be upgraded where necessary.

Recognized roads, as shown on the Rock Springs District Office Transportation Plan, would be used when the alignment is acceptable for the proposed use. Generally, roads would be required to follow natural contours; provide visual screening by constructing curves etc.; and be reclaimed to BLM standards.

To control or reduce sediment from roads, guidance involving proper road placement and buffer strips to stream channels, graveling, proper drainage, seasonal closure, and in some cases, redesign or closure of old roads would be developed when necessary. Construction may also be prohibited during periods when soil material is saturated, frozen, or when watershed damage is likely to occur.

On newly constructed roads and permanent roads, the placement of topsoil, seeding, and stabilization would be required on all cut and fill slopes unless conditions prohibit this (e.g., rock). No unnecessary side-casting of material (e.g., maintenance) on steep slopes would be allowed. Snow removal plans may be required so that snow removal does not adversely affect reclamation efforts or resources adjacent to the road.

Reclamation of abandoned roads would include requirements for reshaping, recontouring, resurfacing with topsoil, installation of water bars, and seeding on the contour. The removal of structures such as bridges, culverts, cattleguards, and signs usually would be required. Stripped vegetation would be spread over the disturbance for nutrient recycling, where practical. Fertilization or fencing of these disturbances would not normally be required. Additional erosion control measures (e.g., fiber matting) and road barriers to discourage travel may be required.

Main artery roads, regardless of primary user, would be crowned, ditched, drained, and surfaced with gravel to reduce sediment, salt, and phosphate loading to the Green River.

Road closures may be implemented during crucial periods (e.g., wildlife winter periods, spring runoff, and calving and fawning seasons).

Soils

If clay soils are used as pit lining, they should have a liquid limit greater than 30 and a Plasticity Index of at least 20. Assuming that bentonite in drilling fluids would sufficiently seal a pit is not good procedure because the bentonite would not be compacted, and uniform coverage and density would not be achieved. Bentonite is also subject to cracking if it is not designed properly.

Uncontrolled or designed settlement of clay particles does not provide a consistently adequate seal on a pit liner. Compaction or permeability testing should be used to determine pit characteristics.

Current objectives focus on soil conservation planning for surface disturbance actions. Soil conservation should be addressed during the initial phase of any surface disturbing action, thereby maintaining soil productivity and stability levels through the use of existing guidelines and techniques. Some areas may require more thorough soil management practices than others, however, this is dependent on the type and duration of the action and the effect on site-specific soil characteristics.

Some examples of standards applied throughout the Resource Area based on soil management criteria are:

1. Closures due to saturated soil conditions when soil resource damage would occur due to wheel rutting or compaction on wet soils.
2. Salvage and subsequent replacement of topsoil whenever possible on surface disturbing activities.
3. Limiting disturbance on slopes greater than 25 percent.

Emphasis should continue to be placed on the reduction of soil erosion and sediment into the Green River Basin watershed. Of particular importance would be those areas with saline soils such as the Little Colorado Desert or those areas with highly erodible geology and soils such as Red Creek drainage.

Management of the soil resource would continue to be based upon the following: 1) Evaluation and interpretation of soils in relation to project design and development; 2) Identification and inventory of soils for baseline data; and 3) Identification and implementation of methods to reduce accelerated erosion.

Evaluation and interpretation involves identification of soil properties which would influence their use and recommendations for development while minimizing soil loss. Projects would be examined on a site-specific basis, evaluating the potential for soil loss and the compatibility of soil properties with project design. Stipulations and mitigating measures are provided on a case-by-case basis to ensure soil conservation and practical management. Projects requiring soil interpretations include: construction of linear right-of-way facilities (i.e., pipelines, roads, railroads, and power transmission lines); construction of water impoundments; rangeland manipulation through fire or mechanical treatments; construction of plant site facilities, pump stations, well pads and associated disturbances; and reclamation projects.

The current Order 3 soil survey is designed to update general soils information and provide data to those areas lacking soil inventories. A baseline soil inventory is ongoing to provide information on productivity, soil engineering properties, and soil erosion potentials. Proposed "I" category allotments and areas impacted by oil and gas projects receive priority in the soil survey process.

Identification of critical erosion condition areas would continue during soil surveys, monitoring, site specific project analysis, and activity plan development for the purpose of avoidance and special management.

Before a surface disturbing activity is authorized, topsoil depth would be determined. The amount of topsoil to be removed, along with topsoil placement areas, would be specified in the authorization. The uniform distribution of topsoil over the area to be reclaimed would be required, unless conditions warrant a varying depth. On large surface-disturbing projects (e.g., gas processing plants) topsoil would be stockpiled and seeded to reduce erosion. Where feasible, topsoil stockpiles would be designed to maximize surface area to reduce impacts to soil microorganisms. Stockpiles remaining less than two years are best for soil micro-organism survival and native seed viability. It is recommended that stockpiles be no more than 3 to 4 feet high. Areas used for spoil storage would be stripped of topsoil before spoil placement. The replacement of topsoil after spoil removal would be required.

Temporary disturbances which do not require major excavation (e.g., small pipelines and communication lines) may be stripped of vegetation to ground level using mechanical treatment, leaving topsoil intact and root mass relatively undisturbed.

In support of the Bureau's mission, soil management is committed to sustaining the productivity of soils.

Watershed

Stream sediment, phosphate, and salinity load would be reduced where possible.

In areas where ground water exists 20 feet or less from the surface (Wyoming Oil & Gas Commission), produced water from oil and gas operations would be disposed of in an approved closed storage system or by other acceptable means complying with Onshore Order #7.

Where depth to groundwater is less than 100 feet and soil permeability is more than 0.1 foot/day, plants, mills, or associated tailings ponds and sewage lagoons would not be allowed.

To protect watershed resources during wet periods, vehicle travel, particularly large or heavy truck traffic, would not be allowed unless travel occurs on roads that are graveled for all-season use.

Crossings of ephemeral, intermittent, and perennial streams associated with road and utility line construction would generally be restricted until after spring runoff and normal flows are established.

Vegetative buffer strips of at least 100 feet should be left intact next to a perennial stream during controlled burning.

The inner gorge of intermittent and ephemeral drainages should be burned in such a manner as to leave unburned patches of vegetation. At no time should the burn consume more than 50 percent of the cover within the inner gorge area. The use of herbicides for vegetative manipulation should proceed with great care when done in the proximity of willows, cottonwoods, or aspens so as not to damage such stands unless the prescription actually calls for such removal.

Herbicide loading sites would be located at least 500 feet from live water, floodplains, riparian areas, and all special status plant locations and would be utilized in accordance with the guidelines in Appendix 9-2. Treatments would adhere to all label directions.

Floatable stream stretches should be managed so that there is no more than a 10 percent increase in fecal coliform count.

Vegetative buffer strips should be maintained between developed recreational facilities and live water.

Prior to installing toilet facilities associated with recreation, ground water protection would be provided for.

Installation of instream structures for fisheries, watershed, or irrigation enhancement must be completely engineered if the high flow for the stream exceeds 10 CFS (cubic feet/second).

Floodplains by their very nature are unsafe locations for permanent structures. With an inundation of flood waters, soils disturbed by construction could experience a rate of erosion greater than undisturbed sites. There is an additional concern over the potential for flood waters to aid in the disbursal of hazardous materials that may be stored within such structures. Therefore, floodplains should have no permanent structures constructed within their boundaries unless it can be demonstrated on a case-by-case basis that there is no physically practical alternative. In cases where floodplain construction is approved, additional constraints could be applied.

Section 2.a.(2) of Executive Order 11988 states in summary that "...if the HEAD OF THE AGENCY finds that the only practicable alternative consistent with the law and with the policy set forth in the Order requires siting in a floodplain, the agency shall, prior to taking action, 1) design or modify its action in order to minimize potential harm...and 2) prepare and circulate a notice containing an explanation of why the action proposed is to be located in the floodplain.

Also, Section 3 of Executive Order 11988, in reference to Federal real property and facilities states that agencies shall, if facilities are to be located in a floodplain (i.e., no practicable alterative), flood protection measures are to be applied to new construction or rehabilitate existing structures, elevate structures rather than fill the land, provide flood height potential markerings on facilities to be used by the public, and when the property is proposed for lease, easement, right of way, or disposal, the agency has to attach restriction on uses in the conveyance, etc., or withhold from such conveyancy.

Disturbances to the soils, such as roads and well pads, can easily concentrate the flow of water increasing its erosive potential. A 500-foot buffer provides an opportunity for such flows to be disbursed before they reach a stream and often precludes construction in riparian zones. Therefore, there should be no construction within 500 feet of a stream unless it can be demonstrated on a case-by-case basis that there is no physically practical alternative. In cases where construction within the 500-foot zone is approved, additional constraints could be applied.

All surface disturbance, permanent facilities, etc., shall remain a minimum of 500 feet away from the edge of surface waters, riparian areas, wetlands, and 100-year floodplains unless it is determined through site specific analysis and the Area Manager approves in writing, that there is no practicable alternative to the proposed action. If such a circumstance exists, then all practicable measures to mitigate possible harm to these areas must be employed. These mitigating measures would be determined case by case and may include, but are not limited to, diking, lining, screening, mulching, terracing, and diversions.

Well Pads and Facilities

Dumping of produced water on roads would not be allowed unless TDS is less than 400 mg/l (State standard for the Colorado River drainage) and the water does not contain hazardous material. No produced water would be allowed on roads in Sublette County.

Both produced water and reserve pits should be constructed to ensure protection of surface and ground water. The review to determine the need for installation of lining material should be done on a case-by-case basis and consider soil permeability, water quality, and depth to ground water. Oil-based muds used for drilling operations should be environmentally acceptable.

Pits would be fenced as specified in individual authorizations. Any pits with harmful fluids in them shall be maintained in a manner that would prevent migratory bird mortality.

Abandoned sites must be satisfactorily rehabilitated in accordance with a plan approved by the BLM. Soil samples may be analyzed to determine reclamation potential, appropriate reseeding species, and nutrient deficits. Tests may include: pH, mechanical analysis, electrical conductivity, and sodium content. Terraces or elongated water breaks would be constructed after slope reduction. Disturbances should be reclaimed or managed for zero runoff from the location until the area is stabilized. All excavations and pits should be closed by backfilling and contouring to conform to surrounding terrain. On well pads and larger locations, the surface use plan would include objectives for successful reclamation including: soil stabilization, plant community composition, and desired vegetation density and diversity.

On producing locations, operators would be required to reduce slopes to original contours (not to exceed 3:1 slopes). Areas not used for production purposes should be backfilled and blended into the surrounding terrain, reseeded, and erosion control measures installed. Erosion control measures would be required after slope reduction. Facilities would be required to approach zero runoff from the location to avoid contamination and water quality degradation downstream. Mulching, erosion control measures, and fertilization may be required to achieve acceptable stabilization.

Reserve pits would not be located in areas where groundwater is less than 50 feet from the surface and soil permeability is greater than 10^{-7}cm/hr.

Produced water from oil and gas operations would be disposed of in accordance with the requirements of Onshore Oil and Gas Order #7.

Any produced water pit or drilling fluids pit that shows indications of containing hazardous wastes would be tested for the Toxicity Characteristic Leaching Procedure constituents. If analysis proves positive, the fluids would be disposed of in an approved manner. The cost of the testing and disposal would be borne by the potentially responsible party.

No surface disturbance is recommended on slopes in excess of 25 percent unless erosion controls can be ensured and adequate revegetation is expected. Engineering proposals and revegetation and restoration plans would be required in these areas.

No sour gas lines would be located closer than one mile to a populated area or sensitive receptor. The applicants must use the best available engineering design (e.g., alignment, block valve type and spacing, pipe grade), and best construction techniques (e.g., surveillance, warning signs) as approved by the Authorized Officer to minimize both the probability of rupture and radius of exposure in the event of an accidental pipeline release of sour gas. A variance from the one-mile distance may be granted by the Authorized Officer based on detailed site-specific analysis that would consider meteorology, topography, and special pipeline design and(or) construction measures. This analysis would ensure that populated areas and sensitive receptors would not be exposed to an increased level of risk.

Wilderness

A controlled surface use stipulation would be applied for activities within 1/4 mile or the visual horizon of the WSA boundary. Actions within or adjacent to the WSAs would be evaluated on a case-by-case basis to determine if appropriate mitigation would be necessary.

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APPENDIX 5-2

ENVIRONMENTAL ANALYSIS AND MITIGATION OF OIL AND GAS DEVELOPMENT AND OTHER SURFACE DISTURBING ACTIVITIES

THE TIERED APPROACH

The BLM has developed, and the BLM Wyoming State Director has utilized, a tiered approach to the analysis of oil and gas development. This approach is applicable to all surface disturbing activities, and is as follows:

> Tier One: The RMP develops the necessary policy, land use decisions, and environmental analyses to lease/develop the public lands. It is during this phase of analysis that lease stipulations are determined.
>
> Tier Two: A more detailed evaluation of planned activity for a specific area is developed and analyzed (e.g., a field development proposal or a coordinated activity plan). An environmental analysis looks at a reasonable range of alternatives and assesses the cumulative impacts of the development. Conditions of approval (COAs) may be determined at this tier.
>
> Tier Three: A site specific environmental analysis would be made for each Application for Permit to Drill (APD), right-of-way (ROW), sundry notice, etc. which would assess the impacts of the proposed development. COAs may be determined at this tier.

At each tiered phase of evaluation, the appropriate level of necessary and due degradation associated with the proposed development would be assessed. Where unnecessary degradation to other resources is recognized, seasonal restrictions or other protective measures would be developed for use by the decisionmaker. These would be attached to leases as stipulations, or to ROWs, APDs, sundry notices, etc as COAs.

The tiered approach to evaluating effects of proposed actions that BLM authorizes allows for subsequent refining of planning and management decisions to avoid unnecessary and undue degradation of other resources. This is primarily done through conducting and documenting site specific environmental analyses of proposed developments, which include identifying mitigation requirements for the related impacts.

The BLM not only has the authority, but also the responsibility to manage the public lands and resources in a manner that maintains balance between commodity development and protection of environmental and other land and resource values for future generations. This authority and responsibility are paramount to the BLM's mandate to manage the public lands and resources under the concept of multiple-use, sustained yield, and environmental integrity. Furthermore, the Federal Land Policy and Management Act of 1976 requires the BLM to consider and coordinate with other public entities and plans, such as State and local planning documents, when making resource decisions.

If we did not have the authority to further refine our planning and management decisions at subsequent, incremental stages of proposals and decision-making, we would be required to provide protection of other resource values on the basis of only "potential" effects and only at the point of making the initial decision of whether or not to issue an oil and gas lease. This would only result in large areas being unnecessarily identified as off-limits to oil and gas leasing and other development.

Use restrictions on construction, drilling, and well completion activities for the benefit of big game and other animals are not to be applied for a blanket 5 1/2- to 9-month period. They also are not to be applied as "stipulations" on existing unstipulated oil and gas leases. Rather, the need for the use of restrictions is to be determined through case-by-case review and analysis of APDs and Sundry Notices, at the time such APDs and Sundry Notices are submitted for approval. Restrictions are applied to avoid or mitigate unnecessary and undue impacts, and they should only be used for locations and time periods that are necessary and appropriate. These restrictions are applied only as COAs for APDs and Sundry Notices not as new "stipulations." The intended application of use restrictions in this manner is consistent with the terms and conditions of existing, unstipulated leases, with the provisions of the regulations in 43 CFR 3101.1-2, and with the Director's policy statement on this subject (WO IM No. 92-67).

LEASE STIPULATIONS

Stipulations are conditions, promises, or demands to be part of a lease only when the environmental and planning record demonstrates the necessity for the stipulations. Stipulations place specific limits on lease rights based on potential conflicts between lease development and various other resources. Stipulations, as such are neither "standard" nor "special", but rather a necessary modification of the terms of the lease. In order to accommodate the variety of resources encountered on Federal lands, these stipulations are categorized as to how a stipulation modifies the lease rights, not by the resource(s) to be protected.

The need for a stipulation is based on an analysis of potential impacts to other resources as a result of a specific action and to help achieve a specific management objective established in a land use plan. Potential impacts which would result in unnecessary and undue resource damage if mitigation/protection measures are not used form the basis for stipulations. The methods of mitigation/protection are determined by the land management agency through land use planning and National Environmental Policy Act (NEPA) analysis.

The necessity for individual lease stipulations is documented in the lease-file record and in the appropriately referenced land use plan or other leasing analysis document. The necessary criteria for exceptions, waivers, or modifications would also be documented in the lease-file record through reference to the appropriate plan or other analysis.

In all cases, use of the stipulations requires identification of specific resource values to be protected, and description of the specific geographic area covered.

Stipulations attached to noncompetitive leases require the applicants acceptance and signature. Stipulations cannot be added or deleted from existing leases without the agreement of both the lessee and lessor and must be in compliance with the requirements of the Federal Onshore Oil and Gas Leasing Reform Act of 1987. Restrictions attached to a lease as stipulations or lease notices at the time of lease issuance are part of the lease terms and are accepted as such by the lessee when a lease offer is filed.

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APPENDIX 5-2

LEASE NOTICES

Lease notices are a parallel tool to lease stipulations. Lease notices are attached to leases at the time of lease issuance, and convey information to assist the lessee in submitting acceptable plans of operation, or to assist in the administration of leases. If a situation or condition is known to exist that could affect lease operations, full disclosure should be made at the time of lease issuance through the use of a lease notice. A lease notice does not involve new restrictions or requirements.

PERMIT/GRANT CONDITIONS OF APPROVAL (COAs)

Conditions of approval (COAs) are conditions or requirements under which a site-specific surface disturbing or human presence activity (filed as an APD, sundry notice, ROW, etc.) is approved. The need for any surface use COA must be clearly justified and documented in the applicable site-specific environmental document. Any COA must also have waiver, exception, or modification criteria identified in the site-specific environmental document to allow for changes in environmental conditions which render the mitigation required by the COA no longer appropriate or necessary.

COAs, when applied to oil and gas activities such as APDs, must provide effective mitigation to prevent undue and unnecessary degradation, but can not infringe upon the lessee's existing rights. An activity plan may not constitute the site-specific analysis necessary to show that a particular activity would result in unnecessary and undue degradation. Mere reference to the terms "unnecessary and undue degradation" is not sufficient justification to apply COAs. Further analysis (Tiers Two and Three) providing clear evidence and convincing need for such mitigation must be prepared prior to applying COAs.

WAIVERS, MODIFICATIONS, OR EXCEPTIONS TO STIPULATIONS OR COAs

Land use plans and/or NEPA documents establish the guidelines by which future waivers, modifications, or exceptions to stipulations or COAs may be granted. Substantial modification or waiver subsequent to lease issuance is subject to public review for at least a 30-day period in accordance with Section 5102.f of the Federal Onshore Oil and Gas Leasing Reform Act of 1987. This standard would also be applied to COAs.

It is important to recognize that the authorized officer has the authority to modify the site location and design of facilities, control the rate of development and timing of activities as well as require other mitigation (i.e., COAs) under Sections 2 and 6 of the standard lease terms (BLM Form 3100-11) and under 43 CFR 3101.1-2. The authorized officer may relocate a proposed oil and gas operation up to 200 meters, or prohibit surface disturbance for up to 60 days (the 60-day/200-meter rule) by using this authority, and attaching a COA to the APD.

The BLM Wyoming State Director, or his representative, utilizing appropriate COAs, can exceed the 60-day/200-meter rule for site-specific actions, such as an APD, where there is site-specific environmental analysis and clear and convincing evidence in the documentation showing undue and unnecessary degradation would result if protective restrictions were not applied. This environmental documentation must address two factors: (1) a combination of alternative mitigation measures which is clearly consistent with lease rights does not reduce adverse impacts to an acceptable level; and (2) the identified impacts constitute unnecessary and undue degradation of public lands or resources. This takes into consideration that due and necessary degradation is acceptable.

Any application of mitigation (COA) to a post-lease operation is subject to State Director Review if requested by the operator. Such a review would consider whether the identified impact is unnecessary or undue degradation. If so determined, the COA would be upheld as being consistent with the granted lease rights, and within the Government's reserved authority to mitigate operations. If determined to be due and necessary degradation, the COA (mitigation) would not be allowed. If the disallowed mitigation was developed in an RMP, then a plan maintenance action or amendment would be necessary to correct any decisions which may infringe on valid existing rights.

APPENDIX 5-3

EROSION CONTROL, REVEGETATION, AND RESTORATION PLAN (ERRP)

The purpose of developing an ERRP is to allow for cooperative innovation in site development and reclamation of a disturbed area to a predetermined land use for wellfield and treatment plant activities. The following is an outline of topics to be covered in an ERRP. All ERRPs must address these points but they are not limited to them. Although the ERRP is a formal a document, amendments can be approved by the Authorizing Officer.

I. INTRODUCTION

Clear Identification of Reclamation Goal

This is to be identified by the Federal Land Management (FLM) agency concerned and should include specific goals for percent perennial cover and species diversity expected for successful reclamation. Predisturbance cover would be used as a guideline for establishing goals.

Short description of activity causing disturbance and project time frames.

Proposed Start Date

Duration of Project

Completion Date

End of Project Life (Estimate)

Set time frames for ERRP

Seasonal reviews to initiate change.

When plan would be considered implemented.

Soil surveys may be required in intensively developing areas for site development mitigation and impact analysis.

II. OBLIGATION

Exactly who (individual name, address, phone) is responsible for what in the:

Design of Plan

Execution of Plan

Monitoring of Progress

An experienced and trained professional (i.e., soil scientist, reclamation specialist) that has been approved by the Authorized Officer (AO) is required to prepare and lead the implementation and monitoring of this plan.

III. SITE MAP FOR PROJECT SHOULD INCLUDE

This information should not just cover the proposed disturbed area, but should extend beyond site boundaries by approximately 150 yards.

Soil Description and Boundaries Symbols

Soil Outcrop

Photo Record Point

Riparian Areas

Saline Areas

Location and Volume of Proposed Material Stockpiles

Time Material Would Be Stored

Type of Material in Pile

Identify Existing Drainage Patterns

Identify Existing Vegetative Cover

Identify Existing ORV or Two-Track Roads

IV. ZERO RUNOFF

Zero runoff for purposes of the ERRP means: No portion of natural or man-caused liquid would leave the disturbed area by either surface or sub-surface flow.

All disturbed sites, except linear rights-of-way, would maintain zero runoff until the area is stabilized. Stabilization would be a value that must be clearly defined in the plan.

Stabilization for purposes of the ERRP is to mean: That point in time when neither erosion nor deposition occurs which is greater than pre-disturbance. This point must be measurable (site monitoring) and self-sustaining, i.e. not dependent on site maintenance.

The AO can approve a variance from zero runoff based on detailed site specific analysis that would consider meteorology, topography, water quality, and special site design and/or construction measures.

V. EROSION CONTROL MEASURES

Description of Proposed Measures

Identify levels of runoff planned for, i.e.: 50-year storm, etc.

Include capacity of all retention structures and engineering design.

Map locating erosion control measures placement

Include Zero Runoff Measures

VI. FUGITIVE DUST CONTROL

Watering or other approved dust abatement procedures would be implemented, when necessary, to prevent severe wind erosion and loss of soil materials during construction.

Describe

How and When

VII. REVEGETATION

Type

Seed

Established Stock

Site Preparation

Planting

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- Planting Time Frames
- Planting Method and Equipment

Fertilization Program

- Rationale for Fertilizing or Not Fertilizing

VIII. MONITORING SITE RECLAMATION PROGRESS

Methods

Time Frames

Photo Record Station (with location) of Site Pre-disturbance

IX. SITE ABANDONMENT

Include Time Frames

X. POTENTIAL PROBLEMS

Address Possible Weak Points

- Erosion
- Slumping
- ORV Use (i.e., cover points that might conflict over ERRP implementation with area land use goals)
- Snow (management)
- Company Fire Policy (weed control) Vs. Vegetation Management Goals

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APPENDIX 6

GENERAL CULTURAL PRESCRIPTIONS

General Management Prescriptions

Initiate formal law enforcement patrol of the Sugarloaf petroglyphs, Tolar petroglyphs, White Mountain Petroglyphs ACEC, Cedar Canyon petroglyphs, Eden-Farson site, Pine Springs ACEC, and LaBarge Bluffs petroglyphs.

Administration of the Archeological Resources Protection Act (ARPA)

Administration of the ARPA will focus on three areas:

Public Education/Outreach Programs – designed to increase public appreciation and understanding of cultural resources through formal presentations to school groups, civic organizations, businesses, and other government offices; hosting of an annual Archeology Week fair at a shopping mall or other large facility; publication of brochures and other materials; leading tours to important sites; participation in academic forums and presentation of professional papers; sponsorship; or cooperative agreement for formal archeological and historical field schools.

Administrative Controls – including fencing, road closures, withdrawals, sign posting, and similar physical and administrative protection including, when possible, formal inventory of specific areas identify identified as likely to be impacted by looters and vandals.

Law Enforcement Patrol – District Ranger, sometimes with the assistance of Cultural Program personnel, would patrol specific sites and general areas identified as high potential for ARPA violation. Areas designated at this time include the Adobe Town-Monument Valley region and the Devils Playground-Twin Buttes area. Specific sites identified are the Dug Springs stage station, LaClede stage station, White Mountain petroglyphs, Cedar Canyon petroglyphs, Tolar petroglyphs, LaBarge Bluffs petroglyphs, Pine Spring, Sage Creek Mountain burial sites, North Table Mountain stratified site and associated site complex, Eden-Farson site, Finley site, and Farson Fossil Fish Beds, Eighteenmile Canyon Fish Beds, and Canyon Creek Fossil Rookery paleontological sites.

Fire Management Direction

Known Native American grave sites would be provided to the Fire Management Officer so that they would not be impacted by fire suppression activities.

Cultural inventories would not normally be required prior to fire fighting activities in most cases. On a case-by-case basis, the area archeologist may request the opportunity to inventory specific areas prior to their impact by firefighting activities.

The cultural program may conduct post-fire inventory of areas where fire lines were bladed or other substantial surface disturbance took place, and mitigation efforts may be undertaken at the discretion of the Area Manager.

APPENDIX 7

PROCEDURES FOR PROCESSING APPLICATIONS IN AREAS OF SEASONAL RESTRICTION

Upon receipt of an application, the project location is reviewed against the resource management plan (RMP) to determine conformance with the plan and to identify existing resource concerns in the project area. An APD is posted for 30 days for public review.

Gather existing National Environmental Policy Act (NEPA) documents pertinent to the proposal or the project area.

Review the proposal against existing environmental documents and the RMP to determine whether existing documentation is adequate.

If existing documentation is adequate, prepare an Administrative Determination (AD) including appropriate mitigation measures (see Wyoming Instruction Memorandum WY-90-346).

If existing documentation is insufficient or nonexistent, prepare NEPA documentation as needed using appropriate format (see BLM NEPA Handbook, H-1790-1).

Issue a decision on the application consistent with the AD or tiered NEPA document as appropriate.

NOTE: In seasonally crucial wildlife habitat, an approved APD will generally include a seasonal Condition of Approval (COA) because (1) the APD is valid for one year from date of issuance and BLM does not control the start-up date for project activity; and (2) field conditions during the crucial period cannot be predicted at the time of APD approval.

If a seasonally restrictive COA is needed because a lease contains no such stipulation, the decision whether to impose the restriction must also consider the reasonableness of the restriction relative to the operator's ability to exercise the benefits of the lease (43 CFR 3101.1-2). The need for a COA must be documented in a site specific EA or EIS, if necessary. This analysis must provide clear and convincing evidence showing undue and unnecessary degradation would result if the COA were not applied.

PROCEDURES FOR HANDLING REQUESTS FOR EXCEPTION FROM SEASONAL STIPULATIONS AND/OR CONDITIONS OF APPROVAL

A request for exception must be initiated in writing by the operator. This may be done concurrently with submission of an application (typical for situations involving lease stipulations), or subsequent to permit approval (in the case of COAs attached to approved permit).

When requested concurrently with an application, the exception from a stipulation or from a COA is considered as part of the project proposal in RMP and NEPA compliance review.

For separate requests, the request is considered as a unique action and is analyzed and documented individually for RMP and NEPA compliance.

In both cases, processing includes coordination with Wyoming Game and Fish Department (WGFD) for seasonal wildlife-based lease stipulations or permit COAs.

The unpredictability of weather, animal movement and condition, etc., preclude analysis of requests related to wildlife far in advance of the time periods in question.

Analyses of requests include review of potential mitigation measures and alternatives (traffic restrictions, alternative scheduling, staged activity, etc.).

CRITERIA FOR CONSIDERING EXCEPTIONS TO SEASONAL RESTRICTED ACTIVITY

Presently, land use activities within the Green River Resource Area may be authorized with a seasonal restriction(s), "no surface occupancy" or a distance restriction for sensitive and crucial habitats. Stipulations were developed to provide protection of natural resources. Protective wildlife seasonal stipulations are developed consistent with statewide dates. For example, big game crucial winter ranges are protected from November 15 through April 30. This restriction is not intended to close an area to development but is in place to protect big game if weather or other habitat needs dictate that it is necessary.

Over the past few years the public has received the impression that crucial winter ranges are off limits to any activity. This is true only when conditions dictate. The BLM can and does grant exceptions to seasonal restrictions if the wildlife biologist, in consultation with the Wyoming Game and Fish Department, feels that granting an exception will not jeopardize the population being protected. Wildlife biologists use a set of criteria when considering a request for an exception. Professional judgement plays a key part in the Bureau's biologist's recommendation to the Area Manager to grant or not grant exception(s). There is no clear cut formula.

Approximately 60 percent of the Federal land acres (2,331,000 acres) in the resource area have no wildlife restrictions. Following are some of the factors considered by the wildlife biologist to determine if a request for exception should be granted.

Big Game Winter Ranges

The criteria used for crucial big game winter range are those areas available, relatively intact, and winter most of the population at its objective in adequate body condition, eight or more years out of ten. The most crucial time period for these animals in the Green River Resource Area is usually from January 1 through March 15, and this time period is when the stipulation dates are generally enforced. However, the remaining time frames of the standard statewide stipulation allows the authorizing officer the option to enforce a longer seasonal restriction if winter conditions warrant

APPENDIX 7

A. General Considerations Regarding a Request for Exception

- Are the factors leading to the inclusion of the wildlife seasonal restriction still valid?
- Is the request for an exception from a lease stipulation or is it for relief from a condition of approval on an application (e.g., APD, SN, ROW)?
- What are the dates for the proposed exception/relief?

B. Criteria to Consider for Granting Exceptions on Winter Ranges:

1. Animal presence or absence
2. Animal condition
3. Weather severity
   - snow conditions (depth, crusting,longevity)
   - seasonal weather patterns
   - wind chill factors (indication of animals energy use)
   - air temperatures & variation
   - duration of condition
   - forecasts - long range for duration of winter
4. Habitat Condition and Availability
   - animal density, high or low
   - forage condition, good or poor
   - competition – livestock/other wildlife
   - forage availability
   - amount of forage
   - snow depth
   - has livestock use decreased available winter forage
   - is there suitable and ample forage immediately available and accessible nearby that is not being used
5. Site Location
   - likelihood of animals habituating to activity
   - presence of thermal cover, wind cover, etc.
   - what proportion of winter range is affected
   - where is the site located within the winter range
   - is there other activity in the area and is this activity likely to increase the cumulative adverse impact
6. Timing
   - early in winter season
   - nearing end of winter season
   - what kind of and length of disruptive activity is expected
   - how much of the winter is remaining when activity is likely to occur

General Considerations for Granting Exceptions to Stipulations

Elk

- Short-term exceptions are more likely to be considered early (November 15 -December 1) and late (April 1 - April 30) in the winter season, depending on weather conditions and animal occupancy. Exceptions would not be granted if requested from December 1 - March 1 unless unusually mild winter conditions prevail. Exceptions in elk calving areas (May 1 - June 30) dates will not be granted due to elk sensitivity to disturbance. Displacement in open habitats is much greater than woodlots or forests, hence restricted areas will encompass larger areas in open habitat.

Moose

- Exceptions will depend on weather conditions and presence of animals.
- Moose habitat is given protection through riparian and stream buffer zone stipulations (500 feet from live water and riparian habitats).

Antelope

- Exceptions will generally be granted except where physical barriers (i.e., Highways, fences, rivers, canyons, etc.) limit animals ability to move into other suitable habitats. In the case of developing oil and gas fields with proposed intensive or disruptive disturbances, BLM and WGFD coordination will be required to assure that cumulative disturbance and/or range competition with other big game and livestock will not affect herd unit objectives. Exceptions to restrictions will be closely watched during severe winters when antelope movement is restricted.

Deer

- Short-term exceptions may be granted early (November 15 - December 1) and late (April 1 - April 30) depending on weather conditions and animal occupancy, using the previously discussed criteria. Exceptions can be granted for north slopes, deep snow areas or other habitats within crucial ranges which preclude use by wintering deer and in which access roads are determined to have little adverse impact.

Raptors

- The "no surface occupancy" stipulation of February 1 to July 31, within 1/2 or 1 mile of raptor nests can be shortened, depending on nesting chronology of individual species, nest site location, and topography. Inactive nests can be excepted, as may certain types of short-term, minor disruption land use activities which are not anticipated to affect nesting success.

Sage Grouse

A "controlled surface use" stipulation will be applied to a 1/4 mile radius of active sage grouse strutting grounds to include no aboveground facilities (power lines, storage tanks, fences, etc.). Linear disturbances such as pipelines, seismic activity, etc., could be granted exceptions. A "controlled surface use" stipulation will be applied from February 1 through May 15, within 1/4 mile radius of active strutting grounds from 6 p.m. to 9 a.m. daily. The actual timing of this stipulation can be modified by weather conditions such as fog and cloudy conditions, or clear, bright moonlit nights. Seasonal restrictions would be applied through July 31, within an additional 1.75-mile radius from leks to protect sage grouse nesting habitat. Areas within that radius not used for nesting can be excepted, provided actual nesting areas are not affected.

The final determination for granting an exception to wildlife stipulations will be a decision by the Bureau of Land Management after consultation with the Wyoming Game and Fish Department.

These procedures will be utilized for any request for exception for a surface disturbing or disruptive activity.

APPENDIX 8-1

LANDS IDENTIFIED AS POSSIBLY SUITABLE FOR DISPOSAL

Acres	LEGAL DESCRIPTION Township and Range	Section	Lot or Legal
Sale/Exchange - Lands Difficult to Manage			
55.23	T. 24 N., R. 99 W.	Section 8	Lot 5, S1/2NE1/4SE1/4
34.33	T. 24 N., R. 99 W.	Section 9	Lot 1
128.00	T. 13 N., R. 101 W.	Section 18	All or portions of Lots 6, 12, 13, 16, and 17
107.61	T. 13 N., R. 102 W.	Section 13	Lots 1, 2, and 3
20.00	T. 27 N., R. 103 W.	Section 4	S1/2NW1/4NE1/4
80.00	T. 30 N., R. 105 W.	Section 20	NW1/4NE1/4, NE1/4NW1/4
40.00	T. 19 N., R. 106 W.	Section 34	SW1/4SE1/4
80.00	T. 19 N., R. 107 W.	Section 34	N1/2NE1/4NE1/4, N1/2NE1/4NW1/4, W1/2NW1/4SW1/4, E1/2NE1/4SE1/4
17.53	T. 12 N., R. 111 W.	Section 6	Lots 11, 12 and 13
15.56	T. 12 N., R. 112 W.	Section 1	Lots 5, 6
7.39	T. 12 N., R. 112 W.	Section 13	Lot 4
Sale/Exchange - Lands Available for Community or Industrial Expansion			
80.00	T. 21 N., R. 101 W.	Section 24	N1/2SW1/4
640.00	T. 21 N., R. 101 W.	Section 36	All
40.00	T. 19 N., R. 103 W.	Section 10	NE1/4NW1/4
640.00	T. 18 N., R. 104 W.	Section 2	All
640.00	T. 18 N., R. 104 W.	Section 14	All
640.00	T. 18 N., R. 104 W.	Section 20	All
160.00	T. 18 N., R. 104 W.	Section 22	NW1/4
82.87	T. 18 N., R. 105 W.	Section 8	Lots 5, 6
320.00	T. 18 N., R. 105 W.	Section 18	S1/2
120.00	T. 19 N., R. 105 W.	Section 4	N1/2SE1/4, SE1/4SE1/4
240.00	T. 18 N., R. 106 W.	Section 14	E1/2SW1/4, SE1/4
640.00	T. 18 N., R. 106 W.	Section 24	All
480.10	T. 17 N., R. 107 W.	Section 4	Lots 7-8, S1/2N1/2, S1/2
315.62	T. 17 N., R. 107 W.	Section 6	Lots 10-14, SW1/4NW1/4, E1/2SW1/4
640.00	T. 17 N., R. 107 W.	Section 8	All
230.00	T. 17 N., R. 107 W.	Section 10	N1/2S1/2, E1/2SW1/4, E1/2W1/2SW1/4, SE1/4
640.00	T. 17 N., R. 107 W.	Section 12	All
640.00	T. 17 N., R. 107 W.	Section 14	All
637.70	T. 17 N., R. 107 W.	Section 18	Lots 5-8, E1/2, E1/2W1/2
640.32	T. 18 N., R. 107 W.	Section 4	All
233.00	T. 18 N., R. 107 W.	Section 14	Lots 9-12, 15, 16
500.28	T. 18 N., R. 107 W.	Section 16	Lots 3-7, 10-15
632.56	T. 18 N., R. 107 W.	Section 18	Lots 6-8, E1/2, E1/2W1/2

APPENDIX 8-1

LANDS IDENTIFIED AS POSSIBLY SUITABLE FOR DISPOSAL (continued)

	LEGAL DESCRIPTION		
Acres	**Township and Range**	**Section**	**Lot or Legal**
Sale/Exchange - Lands Available for Community or Industrial Expansion (continued)			
640.00	T. 18 N., R. 107 W.	Section 20	All
640.00	T. 18 N., R. 107 W.	Section 32	All
315.00	T. 18 N., R. 107 W.	Section 34	NW1/4, SE1/4 (Excepting 5 acres)
627.18	T. 19 N., R. 107 W.	Section 30	Lots 5-8, E1/2, E1/2W1/2
640.00	T. 19 N., R. 107 W.	Section 32	All
640.00	T. 17 N., R. 108 W.	Section 12	All
640.08	T. 18 N., R. 108 W.	Section 2	Lots 5-8, S1/2N1/2, S1/2
640.48	T. 18 N., R. 108 W.	Section 4	Lots 5-8, S1/2N1/2, S1/2
640.00	T. 18 N., R. 108 W.	Section 10	All
640.00	T. 18 N., R. 108 W.	Section 12	All
640.00	T. 18 N., R. 108 W.	Section 14	All
640.00	T. 18 N., R. 108 W.	Section 22	All
640.00	T. 18 N., R. 108 W.	Section 24	All
640.00	T. 18 N., R. 108 W.	Section 26	All
640.00	T. 18 N., R. 108 W.	Section 36	All
640.00	T. 19 N., R. 108 W.	Section 32	All
Exchange			
239.40	T. 19 N., R. 108 W.	Section 6	Lots 8-9, S1/2NE1/4, SE1/4NW1/4, NE1/4SW1/4
640.00	T. 25 N., R. 112 W.	Section 3	All
640.00	T. 25 N., R. 112 W.	Section 9	All
640.00	T. 25 N., R. 112 W.	Section 10	All
640.00	T. 25 N., R. 112 W.	Section 15	All
Recreation and Public Purposes Lands			
159.54	T. 19 N., R. 105 W.	Section 4	Lots 5, 6, S1/2NE1/4
125.54	T. 19 N., R. 105 W.	Section 14	Lots 9, 10, 16
134.83	T. 19 N., R. 105 W.	Section 28	Lots 3, 4, 5, 23
5.00	T. 20 N., R. 105 W.	Section 20	SW1/4SW1/4SW1/4SE1/4
Landfill Sales			
2.50	T. 20 N., R. 101 W.	Section 28	SE1/4SE1/4SE1/4SE1/4
640.00	T. 18 N., R. 105 W.	Section 20	(excepting acreage sold previously to Solid Waste District #1)
320.00	T. 18 N., R. 105 W.	Section 30	E1/2
20.04	T. 17 N., R. 107 W.	Section 4	Lot 9
24,527.69 TOTAL ACREAGE			

NOTE: Also see Appendix 8-2.

APPENDIX 8-2

DISPOSAL CRITERIA

The Federal Land Policy Act of 1976 provides for retention of the public lands in federal ownership and management by BLM for multiple use and sustained yield of the lands and resources, with environmental integrity. Public lands may be transferred from BLM to other federal agencies for management. Disposal by sale, exchange or Recreation and Public Purpose patent remains an option if such an action will serve an important objective and have a public benefit.

Prior to any disposal, a site specific analysis must determine that the lands considered contain no significant wildlife, recreation, or other resource values the loss of which cannot be mitigated; have no overriding public values; and represent no substantial public investments. Disposal must serve the public interest. Exchange will be the priority method for disposals.

Lands will not be considered for disposal if they are allocated for a specific use, even though they meet the general disposal criteria.

EXCHANGES

The policy is to promote land exchanges which serve the national interest and are beneficial to BLM programs or which support the programs of other agencies (reference Sections 102, 205, and 206 of FLPMA).

Transfer of leasable minerals out of Federal ownership should be avoided except where non-Federal leasable minerals are to received in return. It is preferable to trade both surface and subsurface (mineral) estates.

Exchanges should involve lands similar in character and/or value. Proposals will not be considered where it is the intent to transfer acquired lands out of Federal ownership or control.

Exchanges should not be made solely for the purpose of blocking up Federal land ownership.

SALES

Public land sale proposals are the result of either a BLM initiative or in response to expressed public int. rest or need. Lands to be considered for disposal, at a minimum, must meet the following criteria as outlined in Section 203 of the Federal Land Management and Policy Act.

1. They are difficult and uneconomical to manage, and are not suitable for management by another Federal department or agency.
2. Disposal would serve important public objectives, including but not limited to, community expansion or economic development which could not be achieved prudently or feasibly on land other than public lands and which outweigh other public objectives or values.
3. Such tract was acquired for a specific purpose, and the tract is no longer required for that purpose or any other Federal purpose.

SALES/EXCHANGES INVOLVING WETLANDS

Bureau policy is to retain wetlands in Federal ownership unless Federal, State, public and private institutions, and parties have demonstrated the ability to maintain, restore, and protect wetlands and riparian habitats on a continuous basis (BLM Manual 6740). Sales/exchanges may be authorized when:

1. The tract of public wetlands is either so small or remote that it is uneconomical to manage.
2. The tract of public wetlands is not suitable for management by another Federal agency.
3. The patent contains restrictions of uses as prohibited by identified Federal, State, or local wetlands regulations.
4. The patent contains restrictions and conditions that ensure the patentee can maintain, restore, and protect the wetlands on a continuous basis.

RECREATION AND PUBLIC PURPOSES LEASE/PATENT

The objective of the R&PP Act is to meet the needs of State and local governmental agencies and other qualified organizations for public lands required for recreational and public purposes. Use of the R&PP Act protects public values in the land through its reversionary provisions and helps qualified entities obtain the more liberal pricing authorized under the act.

Public lands shall be conveyed or leased only for an established or definitely proposed project for which there is a reasonable timetable of development and satisfactory development and management plans. No more land than is reasonably necessary for the proposed use shall be conveyed.

DESERT LAND ENTRIES

The purpose of the Desert Land Law is to permit the reclamation by irrigation of arid public land through individual effort and private capital.

Lands which will not produce any reasonably remunerative agricultural crop by the usual means or methods of cultivation without artificial irrigation may be considered for a desert land entry. The lands must be untimbered, surveyed, unreserved, and unappropriated. Tracts need not be contiguous, but shall be sufficiently close to each other as to be managed satisfactorily as an economic unit.

The proposed crop may include any agricultural product to which the land under consideration is generally adapted and which would return a fair reward for the expense of producing it.

All Desert Land Entry applications will be coordinated with the Wyoming State Engineer and the U.S. Natural Resource Conservation Service (reference Soils section).

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APPENDIX 8-3

ACQUISITIONS TO BE PURSUED WITH WILLING PARTIES ONLY

Area	Approximate Acres
1. Easements to provide access to public lands for resource needs	300
2. Riparian lands	840
3. Land within the 1/2 mile corridor or between river segments on the Big Sandy River	1,280
4. Land within the 1/2 mile corridor or between river segments on the Sweetwater River	4,800
5. State inholdings in the Devils Playground WSA	1,920
6. State inholdings in the Sand Dunes WSA	1,920
7. Black Rock (West Red Desert HMP)	640
8. Prospect Mountains HMP	2,420
9. Sage Creek/Currant Creek HMP	320
10. State lands in the Greater Sand Dunes ACEC	640
11. Fort LaClede	40
12. Land on Pine Butte to manage the candidate plant species *Descurainia torulosa*	1,920
13. State lands on Steamboat Mountain	2,072
14. Lands along Currant Creek	4,020
15. SW of Section 16, Rador Springs	10
16. SW of Section 7, Scott Meadows	160
17. NWSW of Section 9, Gunn Mining Townsite	20
18. SW of Section 29, Hallville Mine and Town	20
19. N2NE, SWNE, NWSE of Section 25, Washington Homestead - Finley	160
20. NENE of Section 1, Big Pond Stage Station	40
21. Section 27, Aspen Mountain Site	640
22. State inholdings in the Sand Dunes and Buffalo Hump WSAs	640
23. NENE of Section 29 and SWSW of Section 21, T. 27 N., R. 103 W., Dry Sandy Stage & Pony Express Station	80
24. Sections 5, 17, 29 and 31 of T. 19 N., R. 105 W., and section 6 of T. 18 N., R. 105 W. for watershed and big game migration	3,200
25. NESW of section 30, T. 15 N., R. 107 W. for watershed	40
26. SESE of section 23, T. 13 N., R. 106 W. for watershed	40

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APPENDIX 9-1

ALLOTMENT MONITORING AND CATEGORIES

ALLOTMENT			ACTUAL	UTILIZA-		FIELD	OTHER
NUMBER	NAME	CATEGORY	USE	TION	TREND	OBSERVATIONS	STUDIES
03000	GOLD CREEK	I	X	X	X	X	SRT
03016	4TH OF JULY	I	X	X		X	
03028	EDEN PROJECT	None	X			X	
03202	JUEL PLACE	C	X			X	
03203	SPICER GROUP	C	X			X	
03204	GRASS CREEK	C	X			X	
03206	PULLEY PLACE	C	X			X	
03207	PACIFIC SPRINGS	C	X			X	
03214	JOHNSON PLACE	C	X			X	
03215	COOKSTON RANCH	C	X			X	
03303	JENSEN MEADOWS	C	X			X	
03304	BIG SANDY RANCH	C	X			X	
03307	HAY MEADOW	C	X			X	
03404	RICHIE PASTURE	C	X			X	
03407	HAY MEADOW EXC.	C	X			X	
04001	CIRCLE SPRINGS	I	X	X		X	SRT
04007	RIFE	M	X	X		X	
04003	VERMILLION CREEK	I	X	X	X	X	
04004	ALKALI CREEK	M	X	X		X	
04005	CROOKED WASH	I	X	X		X	
04006	HORSESHOE WASH	I	X	X		X	
04007	PINE MOUNTAIN	I	X	X	X	X	SRT
04008	RED CREEK	I	X	X	X	X	SRT
04009	SALT WELLS	I	X	X	X	X	SRT
04010	SUGARLOAF	I	X	X	X	X	SRT
04011	SPRING CREEK	I	X	X	X	X	
04012	HENRYS FORK	I	X	X	X	X	
04013	HICKEY MOUNTAIN	I	X	X		X	SRT
04014	LARSEN	M	X	X		X	
04015	STAG HOLLOW	M	X	X		X	
04016	DONOHOO	C	X	X	X	X	
04017	POISON CREEK	C	X	X		X	
04018	BALD HILLS	I	X	X		X	
04019	HANKS	I	X	X		X	
04020	HISEY HOLLOW	C	X	X		X	
04021	CEDAR POINT	C	X	X		X	
04022	ANTELOPE	I	X	X		X	
04023	CIRCLE BAR	C	X	X		X	
04024	SAGE	C	X	X		X	
04025	COTTONWOOD CREEK	I	X	X		X	
04026	PEOPLES CANAL	C	X	X		X	
04027	MELLOR MOUNTAIN	I	X	X	X	X	SRT
13001	WHITE ACORN	M	X	X	X	X	
13002	LITTLE PROSPECT	I	X	X	X	X	
13003	LITTLE SANDY	I	X	X	X	X	
13004	PROSPECT MOUNTAIN	I	X	X	X	X	

APPENDIX 9-1

ALLOTMENT MONITORING AND CATEGORIES (continued)

ALLOTMENT NUMBER	ALLOTMENT NAME	CATEGORY	ACTUAL USE	UTILIZATION	TREND	FIELD OBSERVATIONS	OTHER STUDIES
13005	POSTON	I	X	X	X	X	
13006	RESERVOIR	M	X	X	X	X	
13007	PACIFIC CREEK	M	X	X	X	X	
13008	BAR X	M	X	X	X	X	
13009	FISH CREEK	I	X	X	X	X	
13010	PINE CREEK	I	X	X	X	X	SRT
13011	CONTINENTAL PEAK	M	X	X	X	X	
13012	RED DESERT	M	X	X	X	X	
13013	BUSH RIM	M	X	X	X	X	
13014	STEAMBOAT MOUNTAIN	I	X	X	X	X	
13015	SANDS	I	X	X	X	X	
13017	EIGHTEEN MILE	I	X	X	X	X	
13018	ROCK SPRINGS	M	X	X		X	
13019	SANDY PASTURE	M					
13020	BUCKSKIN-SANDY	M	X	X	X	X	
13021	MACK FLAT	C					
13022	LOMBARD	I	X	X	X	X	SRT
13023	FIGURE FOUR	I	X	X	X	X	
13024	BIG SANDY	M	X	X	X	X	
13025	HIGHWAY GASSON	I	X	X	X	X	
13026	BOUNDRY	M	X	X	X	X	
13027	SUBLETTE	I	X	X	X	X	
13100	JACK RANCH	C	X			X	
13101	UPPER WHITE ACORN	C	X			X	
13102	McCANN RANCH	C	X			X	
13103	EATON PLACE	C	X			X	
13104	LONG DRAW	C	X			X	
13105	ERRAMOUSPE	C	X			X	
13106	DEWEY PLACE	C	X			X	
13107	MIDDLE HAY	C	X			X	
13109	SWEETWATER	I	X			X	
13110	DEAD OX	C	X			X	
13114	CHILTON PLACE	C	X			X	
13115	HOUGHTON	C	X			X	

NOTES: Precipitation data is collected for all allotments.

X = Monitoring taking place

SRT = Special riparian transect

APPENDIX 9-2

STANDARD OPERATING PROCEDURES FOR RANGE IMPROVEMENTS AND VEGETATION MANIPULATIONS

These operating procedures provide standard guidance for all range improvements and vegetation manipulations.

Consultation with the affected interest groups and an approved environmental analysis would be required for all range improvements before any project is constructed.

Roads or trails to new construction or project sites would be constructed only if access does not exist.

Proposed range improvements that would result in surface disturbance would be inventoried for archeological features. All archeological sites identified would be avoided or mitigated. If undiscovered cultural remains are encountered during construction, the operator would temporarily discontinue activities until BLM evaluates the discovery and determines the appropriate action.

Proposed range improvements resulting in surface disturbance would be subject to these guidelines.

No action would be taken by BLM that could jeopardize the continued existence of any federally listed threatened or endangered plant or animal species.

BLM would also comply with any state laws applying to animal or plant species identified by the state as being threatened or endangered (in addition to the federally listed species).

Wildlife escape devices would be installed and maintained in all water troughs.

Fences in pronghorn antelope winter ranges, deer crucial winter ranges, and known migration routes would be constructed to minimal standards (3-strand wire fence with bottom wire smooth and top two barbed), monitored annually, and modified if necessary to facilitate reasonable movement by wildlife.

All areas where vegetation manipulation occurs would be totally rested from livestock grazing for a minimum of two growing season, or longer if necessary, to allow for the recovery and re-establishment of key forage species.

Chemical treatment would consist of applying approved chemicals to meet plan objectives. Before chemicals are applied, the BLM would comply with Department of the Interior regulations. All chemical applications would be preceded by an approved pesticide use proposal and an environmental assessment. All applications would be carried out in compliance with the pesticide laws for Wyoming.

All land treatment projects on crucial wildlife ranges will be limited in size, where necessary, by the cover and(or) forage requirements of wildlife. Proper mitigation measures would be incorporated.

All burning projects will have a burn plan, environmental assessment, and a burn permit from the State of Wyoming's Department of Environmental Quality prior to initiation.

The impacts on wildlife winter range areas and on wild horse distribution would be considered in planning all new water facilities.

On identified crucial deer winter ranges where vegetative manipulation is planned or other vegetative disturbance has occurred, include a variety of high quality shrub seedlings, such as winterfat, shadscale, four-wing saltbush and, in certain instances mountain mahogany and antelope bitterbrush, to complement the usual grass mixture.

Exclusion of wild horses and livestock and possible re-seeding operations may be required in severe unstable watersheds.

All vegetation treatments will be designed irregular in shape for edge effect, cover, and visual esthetics.

DESIGN OF RANGE IMPROVEMENTS

All range improvements will be designed and constructed in such a manner so as to minimize environmental impacts while maximizing function and cost effectiveness. Prior to the installation of any range improvements, an environmental assessment (EA) will be prepared analyzing the alternatives for the project.

Brush Control

Brush control refers to the removal of a shrub or tree overstory to release the grass and forb understory from the effects of competition for soil nutrients and water. The techniques involved in brush control generally fall into one of three categories: burning, chemical, or mechanical.

Burning involves the use of fire under prescribed conditions to change the character of the vegetative community. This technique takes advantage of the relative fire tolerance between plant species. Prescribed burning is most useful in removing a dominant fire sensitive overstory species, such as big sagebrush, thereby opening up the community to the natural response of fire tolerant grasses, forbs and shrubs. Prescribed fire can also be useful in preparing a seedbed for artificial reseeding. The main disadvantage to prescribed burning is its harsh initial impact on the site. Initially, ground cover is greatly reduced, erosion potential is increased, wildlife habitat is reduced and forage production is decreased. Re-establishment of vegetation on the site can be quite slow but usually results in increased productivity, palatability and species diversity while erosion potential is decreased over pretreatment levels. The cost of prescribed burning is low compared to other techniques.

Chemical treatments involve the use of ground or aerially applied herbicides to target species to reduce their competitive effect on more desirable species. Many classes of herbicides exist and they all vary in action, selectivity, and persistence. However, relatively few compounds are approved for use in brush removal on public lands. These compounds are usually selective for broadleaf vegetation and leave only grasses and tolerant forb and shrub species after treatment. If, for instance, the target species is sagebrush, few species other than grasses will exist immediately following application. However, by the next growing season the seed source for other species will begin to express itself as a result of reduced overstory competition. Generally by the end of the first complete growing season, increased understory productivity and species diversity are evident. Chemical treatments have less total impact on the site than burning or mechanical treatments but are usually more expensive than burning. In addition, the seedbed resulting from a chemical treatment is usually not as suitable for reseeding due to the amount of standing litter.

Mechanical treatments involve the use of agricultural equipment to simply remove the overstory or to consume the entire community and leave a suitable seedbed. Techniques and implements are highly variable but all share the disadvantage of high cost.

All of the above brush control techniques can be used to prepare a seedbed suitable for artificial reseeding. Where needed, reseeding is a viable technique to establish a more desirable plant community. However, seed and application costs can be high and are sometimes difficult to prove cost effective. Wherever possible, techniques used and sites chosen on the resource area will be those that lend themselves to natural regeneration.

Vegetation manipulation (controlled burning, mechanical treatment, artificial seeding, etc.) will generally be designed in irregular patterns creating more "edges," with islands of vegetation left intact for cover, with the exception of drainages where active channel incision is occurring or in areas where saline or sodic soils are present. Manipulation proposals are handled on a case-by-case basis, followed with animal control to ensure re-establishment of vegetation.

Reservoirs

Reservoirs are constructed by heavy earth-moving equipment that is used to build dikes across drainages. The impoundments created are designed to catch temporary runoff or permanent streamflow to provide a more reliable source of water for livestock and wildlife. Design requirements are determined mainly by the nature and amount of source water. Where permanent flow exists, or in critical wildlife areas, reservoirs will be fenced and off-site watering facilities (troughs) will be installed. This will provide riparian habitat, reduce silt load entering the reservoir, and increase waterfowl survival.

Water will be provided for wildlife in appropriate habitat areas (spring/summer/fall habitat areas). Whenever possible, water will be provided in allotments (including rested pastures) during seasonal periods of need for wildlife.

Wells

Wells are usually drilled in areas where other water sources are unavailable to provide a reliable water source for livestock and wildlife. Drinking troughs will be installed near the well and will be modified to serve young and mature animals as well as small game and birds. Well sites will be selected based on geologic well site investigations.

Springs

Spring sources are usually developed with a backhoe or other implement designed to expose the aquifer. Source points are gathered into a central point or head box through a perforated pipe and diverted into a pipeline or drinking trough. The spring source will be fenced for protection and to provide riparian habitat. A wildlife drinking trough may be located within the enclosure. The livestock trough will be located outside the enclosure and will also be modified for use by wildlife. All spring developments will be managed as a closed system.

Water Pipelines

Pipelines consist of plastic, usually polyethylene, pipe buried by mechanical pipe laying implements to a depth necessary to maximize the life and efficiency of the pipe material. Pipelines originate at spring sources or wells and are used to distribute water to unserviced areas. Drinking troughs are situated along the pipeline, usually no more than one mile apart, to distribute use throughout the area.

Fences

Fences are constructed to provide management boundaries such as to provide pastures or outside boundaries for a grazing allotment. Because of the potential for impact to wildlife movement, fence design is highly variable. Wire would be smooth, barbed, mesh, or combined, dependent on the wildlife species involved. Steel line posts will be spaced a minimum of 16.5 feet apart. Wooden braces will usually be spaced 1/4 mile apart. Fences may be modified in heavy snow or animal migration areas by using wood poles.

Cattleguards

Cattleguards will be installed where fences cross heavily traveled roads or in situations where opened gates would severely compromise management. Cattleguard grids vary in weight and size requirements, but usually require a backhoe to install.

Noxious Weed Guidelines

Chemical treatment by spray application within 100 feet of perennial streams would be prohibited. If riparian vegetation exceeds 100 feet, this buffer would be expanded to make certain this vegetation is not destroyed. Noxious weeds may be treated in accordance with the Rock Springs District Noxious Weed EA (WY-049-EA82-04) and Northwest Area Noxious Weed Control Program EIS.

Aerial application of chemicals would not be allowed within 1/4 mile of special status plant locations.

Hand application will be prohibited within 500 feet of special status plant locations.

The County Weed and Pest Supervisors will consult with the BLM Authorized Officer prior to initiation of any site-specific treatment projects.

The County Weed and Pest Supervisor with the BLM Rock Springs District will develop a water monitoring plan for any riparian treatment area prior to chemical applications. For management purposes, riparian habitat is the on-site vegetation found immediately adjacent and subject to the influences of surface and subsurface waters from streams, rivers, or standing bodies of water.

Monitoring

All chemical treatment sites will be re-evaluated by the County Weed and Pest Supervisors and the BLM Authorized Officer one and two years, respectively, after treatment to ascertain the effectiveness of the treatment program. If re-treatment is necessary, County Weed and Pest Supervisors in cooperation with the BLM Rock Springs District will develop a re-treatment program.

Aerial Application

All aerial application, particularly near live water (ponds or lakes), would require the direct consultation and approval of an Authorized Officer of the Rock Springs District prior to the action. An unsprayed buffer zone of 100 feet will be maintained near live or still water. Spray areas will be irregular in shape.

Vehicular Mounted Boom Sprayers and Hand Spray Gun

Vehicular mounted boom sprayers and hand spray guns would mostly be used in nonriparian zones, accessible by vehicle. Near live or still water areas, the spray boom would only be used where feasible. With both methods, sprays would be applied at a height of 1.5 to 2 feet when wind velocity is below 7 mph, except in riparian areas where treatment would only be conducted when wind velocity is below 4 mph.

Wipe Application Method for Liquid Formulations

Wipe application would be used near live water and other aquatic sites, particularly environmentally sensitive areas, and where weeds overhang waterways. The herbicide solution would be wiped on the individual plants to be controlled. All herbicide application near water areas described in the Designated Noxious Weed Control EA would require consultation and approval by the BLM Authorized Officer prior to initiation of treatment. A buffer zone or distance designated by the BLM Authorized Officer after consultation with the appropriate County Weed and Pest Supervisor would be maintained near these waters.

Chemical spraying in riparian areas will not be allowed without prior approval of the authorized officer. All spraying will follow guidelines in appropriate BLM Manuals.

As an ongoing part of the program, the BLM will consider the re-invasion of noxious weeds in the design and implementation of grazing systems.

Chemical treatment and applications will be used only where national guidelines and demonstrated protection can be exercised to prevent unwanted destruction of desirable fauna or flora and to prevent transportation of these chemicals to other areas by water or air movement. Edge effect will be maximized by following natural contours and terrain features.

Grazing of treated areas would be deferred for at least two growing seasons.

Allow no surface-disturbing construction of range improvements if high seasonal soil moisture would result in excessive rutting of roads, etc. The period from March 15 to May 1 is typically unsuitable for surface-disturbing activity.

Prescribed Burn Treatment Guidelines

Prescribed fire will generally be the preferred method of vegetation manipulation to convert decadent stands of brushland to grasslands and to stimulate sprouting of old, decadent aspen stands and/or shrub species. Prescribed burns are preferred in areas having greater than 35 percent sagebrush composition, 20 percent desirable grass composition, and greater than 10 inches of precipitation. Other vegetation manipulation methods will be considered on a case-by-case basis depending on objectives and cost benefits.

Prescribed burns would be conducted in crucial antelope and mule deer winter ranges or sage grouse nesting areas only if habitat values would improve for these species. A site specific analysis would be conducted prior to any treatments. Areas with a significant amount of antelope bitterbrush (*Pursia tridentata*) will be examined and evaluated before prescribed burns are conducted. Burns will be conducted in conditions that support the objective. Edge effect will be maximized by burning in a mosaic pattern whenever possible. Unplanned fires that occur in areas with an approved fire prescription will be allowed to burn as long as they remain within the prescriptions and meet land use objectives. Individual, decadent aspen stands may be burned to promote sprouting and encourage regeneration. Each planned burn will be evaluated and examined in relation to multiple use objectives.

Each alternative has identified the number of acres suitable for prescribed fire to increase forage production. The acreage figures were derived from computer-generated data (Geographic Information System and satellite imagery) which overlayed precipitation zones, crucial wildlife ranges, and areas with greater than 35 percent brush canopy. Development of AMPs and other activity plans will further refine the acreage according to livestock grazing, wildlife, and other resource objectives. Some allotments have very small acreages available for prescribed burns. Because of the high cost to burn such small areas, they are not likely to be treated. Other allotments containing large acreages may not receive the total projected burn acreage due to resource considerations (e.g., sage grouse nesting areas, erodible soils, or other factors). Acreages of prescribed burns may increase or decrease on certain allotments depending on rangeland management needs as addressed in AMPs and other activity plans.

Chemical Treatment Guidelines

Chemical treatment and applications will be used only where control can be exercised to prevent unwanted destruction of desirable flora or fauna and to prevent transportation of chemicals to other areas by water or air movement. Specific methods of application would be used for the control of noxious weeds and the reduction of sagebrush canopies that have increased to undesirable levels. Sagebrush control areas will be limited to a maximum size of 160 acres. Edge effect will be maximized by following natural contours and terrain features.

Wipe application methods may be used along the streams that are Colorado River trout habitat and in the special habitat improvement program areas in the planning area provided no adverse impacts occur to these resources.

Method of control of designated noxious weeds near threatened and endangered plant sightings will be determined by the BLM.

Biological treatment (insects) will be considered to weaken and limit reproduction of noxious weeds in critical riparian areas or areas with sensitive plants and animals where application of chemicals is not feasible. Any insects used for noxious weed control must have been carefully tested for host specificity, thus reducing or eliminating possible adverse effects on native vegetation.

Mechanical Treatment Guidelines

Mechanical vegetation treatment (chaining, ripping, pitting, etc.) will be considered to alter existing vegetation. Mechanical treatments will be examined on an individual basis in relation to multiple use objectives.

All brush control projects will involve site specific environmental analysis; coordination with affected livestock operators and the WGFD; and will consider objectives for other resource uses including livestock, wildlife, and watershed.

APPENDIX 9-2

PROPER FUNCTIONING CONDITION GUIDELINES

In riparian areas where livestock grazing has been determined to be a contributing factor to stream conditions in less than proper functioning condition, or is determined to be adversely affecting the recovery of the area to proper functioning condition, appropriate grazing management practices would be used to help meet the riparian objective for the areas. Appropriate methods would be determined through site specific analysis. Methods include (but are not limited to) timing and seasons of use, seasonal changes, grazing systems, riparian pasture fences and exclosures, herding, changes in class of livestock, managing use levels, off-site water, off-site salting, rest for 1 or more years, and reduction in number of AUMs. These are not the only means or methods that can be implemented to meet riparian objectives. Depending on the causative agent(s), other methods could include road closures, area closures to ORVs, oil and gas development restrictions, etc. See each section for specific stipulations that can be applied. These methods and practices will be coordinated with the Desired Plant Community (DPC) objectives that will be developed for all habitats.

The current condition, objectives, and trend of the riparian area, along with factors which may be affecting the riparian area, would be considered in determining appropriate management methods to apply. Interdisciplinary team (IDT) input, (along with input from users and interested parties) is essential in determining the causes of any unsatisfactory conditions and the method(s) to be used in management of riparian areas. Implementation of various management practices is flexible and can change as new information is acquired. As an example, utilization levels (the amount of plant material that can be consumed by grazing animals over an identified time period) could be implemented as a management tool to assist in achieving riparian objectives (PFC, DPC, etc.). Desired Plant Communities could range from early seral to Potential Natural Community (PNC). Such levels would be developed specific to a geographic area or allotment. Resource data and other information related to these areas would be used to aid in determining appropriate levels. Examples of some grazing management practices can be found in the Management Situation Analysis (MSA) on file in the Green River Resource Area Office.

Technical Report 1737-4 (page 10), also referenced in TR 1737-9, states that utilization targets or guidelines are a tool that can be used to help ensure long-term objectives are met. When riparian conditions are unsatisfactory, a decrease in the use of riparian forage by grazing animals (and corresponding decrease in time spent in the riparian zone) can have the effects of increasing plant material for the protection of stream banks, decreasing surface runoff and soil compaction, increasing infiltration, providing for increased root reserves, etc. Other management actions may also be necessary to accomplish objectives for riparian condition on a site specific basis. The minimum acceptable level for riparian areas within the Green River Resource Area is proper functioning condition.

APPENDIX 9-3

STANDARDS FOR HEALTHY RANGELANDS AND GUIDELINES FOR LIVESTOCK GRAZING MANAGEMENT FOR PUBLIC LANDS ADMINISTERED BY THE BUREAU OF LAND MANAGEMENT IN THE STATE OF WYOMING

August 12, 1997

APPENDIX 9-3

INTRODUCTION

According to the Department of the Interior's final rule for grazing administration, effective August 21, 1995, the Wyoming Bureau of Land Management (BLM) State Director is responsible for the development of standards for healthy rangelands and guidelines for livestock grazing management on 18 million acres of Wyoming's public rangelands. The development and application of these standards and guidelines are to achieve the four fundamentals of rangeland health outlined in the grazing regulations (43 CFR 4180.1). Those four fundamentals are: (1) watersheds are functioning properly; (2) water, nutrients, and energy are cycling properly; (3) water quality meets State standards; and (4) habitat for special status species is protected.

Standards address the health, productivity, and sustainability of the BLM administered public rangelands and represent the minimum acceptable conditions for the public rangelands. The standards apply to all resource uses on public lands. Their application will be determined as use-specific guidelines are developed. Standards are synonymous with goals and are observed on a landscape scale. They describe healthy rangelands rather than important rangeland by-products. The achievement of a standard is determined by observing, measuring, and monitoring appropriate indicators. An indicator is a component of a system whose characteristics (e.g., presence, absence, quantity, and distribution) can be observed, measured, or monitored based on sound scientific principles.

Guidelines provide for, and guide the development and implementation of, reasonable, responsible, and cost-effective management practices at the grazing allotment and watershed level. The guidelines in this document apply specifically to livestock grazing management practices on the BLM administered public lands. These management practices will either maintain existing desirable conditions or move rangelands toward statewide standards within reasonable timeframes. Appropriate guidelines will ensure that the resultant management practices reflect the potential for the watershed, consider other uses and natural influences, and balance resource goals with social, cultural/historic, and economic opportunities to sustain viable local communities. Guidelines, like standards, apply statewide.

Implementation of the Wyoming standards and guidelines will generally be done in the following manner: Grazing allotments or groups of allotments in a watershed will be reviewed based on the BLM's current allotment categorization and prioritization process. Allotments with existing management plans and high-priority allotments will be reviewed first. Lower priority allotments will be reviewed as time allows or when it becomes necessary for BLM to review the permit/lease for other reasons such as permit/lease transfers, permittee/lessee requests for change in use, etc. The permittees and interested publics will be notified when allotments are scheduled for review and encouraged to participate in the review. The review will first determine if an allotment meets each of the six standards. If it does, no further action will be necessary. If any of the standards aren't being met, then rationale explaining the contributing factors will be prepared. If livestock grazing practices are found to be among the contributing factors, corrective actions consistent with the guidelines will be developed and implemented before the next grazing season in accordance with 43 CFR 4180. If a lack of data prohibits the reviewers from determining if a standard is being met, then a strategy will be developed to acquire the data in a timely manner.

On a continuing basis, the Standards for Healthy Rangelands will direct on-the-ground management on the public lands. They will serve to focus the on-going development and implementation of activity plans toward the maintenance or the attainment of healthy rangelands.

Quantifiable resource objectives and specific management practices to maintain or achieve the standards will be developed at the local BLM District and Resource Area levels and will consider all reasonable and practical options available to achieve desired results on a watershed or grazing allotment scale. The objectives shall be reflected in site-specific activity or implementation plans as well as in livestock grazing permits/leases for the public lands. These objectives and practices may be developed formally or informally through mechanisms available and suited to local needs (such as Coordinated Resource Management (CRM) efforts).

The development and implementation of standards and guidelines will enable on-the-ground management of the public rangelands to maintain a clear and responsible focus on both the health of the land and its dependent natural and human communities. This development and implementation will ensure that any mechanisms currently being employed or that may be developed in the future will maintain a consistent focus on these essential concerns. This development and implementation will also enable immediate attention to be brought to bear on existing resource concerns.

These standards and guidelines are compatible with BLM's three-tiered land use planning process. The first tier includes the laws, regulations, and policies governing BLM's administration and management of the public lands and their uses. The previously mentioned fundamentals of rangeland health specified in 43 CFR 4180.1, the requirement for BLM to develop these State (or regional) standards and guidelines, and the standards and guidelines themselves, are part of this first tier. Also part of this first tier are the specific requirements of various Federal laws and the objectives of 43 CFR 4100.2 that require BLM to consider the social and economic well-being of the local communities in its management process.

These standards and guidelines will provide for statewide consistency and guidance in the preparation, amendment, and maintenance of BLM land use plans, which represent the second tier of the planning process. The BLM land use plans provide general allocation decisions concerning the kinds of resource and land uses that can occur on the BLM administered public lands, where they can occur, and the types of conditional requirements under which they can occur. In general, the standards will be the basis for development of planning area-specific management objectives concerning rangeland health and productivity, and the guidelines will direct development of livestock grazing management actions to help accomplish those objectives.

The third tier of the BLM planning process, activity or implementation planning, is directed by the applicable land use plan and, therefore, by the standards and guidelines. The standards and guidelines, as BLM statewide policy, will also directly guide development of the site-specific objectives and the methods and practices used to implement the land use plan decisions. Activity or implementation plans contain objectives which describe the site-specific conditions desired. Grazing permits/leases for the public lands contain terms and conditions which describe specific actions required to attain or maintain the desired conditions. Through monitoring and evaluation, the BLM, grazing permittees, and other interested parties determine if progress is being made to achieve activity plan objectives.

Wyoming rangelands support a variety of uses which are of significant economic importance to the State and its communities. These uses include oil and gas production, mining, recreation and tourism, fishing, hunting, wildlife viewing, and livestock grazing. Rangelands also provide amenities which contribute to the quality of life in Wyoming such as open spaces, solitude, and opportunities for personal renewal. Wyoming's rangelands should be managed with consideration of the State's historical, cultural, and social development and in a manner which contributes to a diverse, balanced, competitive, and resilient economy in order to provide opportunity for economic development. Healthy rangelands can best sustain these uses.

To varying degrees, BLM management of the public lands and resources plays a role in the social and economic well-being of Wyoming communities. The National Environmental Policy Act (part of the above-mentioned first planning tier) and various other laws and regulations mandate the BLM to analyze the socioeconomic impacts of actions occurring on public rangelands. These analyses occur during the environmental analysis process of land use planning (second planning tier), where resource allocations are made, and during the environmental analysis process of activity or implementation planning (third planning tier). In many situations, factors that affect the social and economic well-being of local communities extend far beyond the scope of BLM management or individual public land users' responsibilities. In addition, since standards relate primarily to physical and biological features of the landscape, it is very difficult to provide measurable socioeconomic indicators that relate to the health of rangelands. It is important that standards be realistic and within the control of the land manager and users to achieve.

STANDARDS FOR HEALTHY PUBLIC RANGELANDS

STANDARD #1

Within the potential of the ecological site (soil type, landform, climate, and geology), soils are stable and allow for water infiltration to provide for optimal plant growth and minimal surface runoff.

THIS MEANS THAT:

The hydrologic cycle will be supported by providing for water capture, storage, and sustained release. Adequate energy flow and nutrient cycling through the system will be achieved as optimal plant growth occurs. Plant communities are highly varied within Wyoming.

INDICATORS MAY INCLUDE BUT ARE NOT LIMITED TO:

- Water infiltration rates;
- Soil compaction;
- Erosion (rills, gullies, pedestals, capping);
- Soil micro-organisms;
- Vegetative cover (gully bottoms and slopes); and
- Bare ground and litter.

The above indicators are applied as appropriate to the potential of the ecological site.

STANDARD #2

Riparian and wetland vegetation has structural, age, and species diversity characteristic of the stage of channel succession and is resilient and capable of recovering from natural and human disturbance in order to provide forage and cover, capture sediment, dissipate energy, and provide for ground water recharge.

THIS MEANS THAT:

Wyoming has highly varied riparian and wetland systems on public lands. These systems vary from large rivers to small streams and from springs to large wet meadows. These systems are in various stages of natural cycles and may also reflect other disturbance that is either localized or widespread throughout the watershed. Riparian vegetation captures sediments and associated materials, thus enhancing the nutrient cycle by capturing and utilizing nutrients that would otherwise move through a system unused.

INDICATORS MAY INCLUDE BUT ARE NOT LIMITED TO:

- Erosion and deposition rate;
- Channel morphology and flood plain function;
- Channel succession and erosion cycle;
- Vegetative cover;
- Plant composition and diversity (species, age class, structure, successional stages, desired plant community, etc.);
- Bank stability;
- Woody debris and instream cover; and
- Bare ground and litter.

The above indicators are applied as appropriate to the potential of the ecological site.

STANDARD #3

Upland vegetation on each ecological site consists of plant communities appropriate to the site which are resilient, diverse, and able to recover from natural and human disturbance.

THIS MEANS THAT:

In order to maintain desirable conditions and/or recover from disturbance within acceptable timeframes, plant communities must have the components present to support the nutrient cycle and adequate energy flow. Plants depend on nutrients in the soil and energy derived from sunlight. Nutrients stored in the soil are used over and over by plants, animals, and micro organisms. The amount of nutrients available and the speed with which they cycle among plants, animals, and the soil are fundamental components of rangeland health. The amount, timing, and distribution of energy captured through photosynthesis are fundamental to the function of rangeland ecosystems.

INDICATORS MAY INCLUDE BUT ARE NOT LIMITED TO:

- Vegetative cover;
- Plant composition and diversity (species, age class, structure, successional stages, desired plant community, etc.);
- Bare ground and litter;
- Erosion (rills, gullies, pedestals, capping); and
- Water infiltration rates.

The above indicators are applied as appropriate to the potential of the ecological site.

STANDARD #4

Rangelands are capable of sustaining viable populations and a diversity of native plant and animal species appropriate to the habitat. Habitats that support or could support threatened species, endangered species, species of special concern, or sensitive species will be maintained or enhanced.

THIS MEANS THAT:

The management of Wyoming rangelands will achieve or maintain adequate habitat conditions that support diverse plant and animal species. These may include listed threatened or endangered species (U.S. Fish and Wildlife-designated), species of special concern (BLM-designated), and other sensitive species (State of Wyoming-designated). The intent of this standard is to allow the listed species to recover and be delisted, and to avoid or prevent additional species becoming listed.

INDICATORS MAY INCLUDE BUT ARE NOT LIMITED TO:

- Noxious weeds;
- Species diversity;
- Age class distribution;
- All indicators associated with the upland and riparian standards;
- Population trends; and
- Habitat fragmentation.

The above indicators are applied as appropriate to the potential of the ecological site.

STANDARD #5

Water quality meets State standards.

THIS MEANS THAT:

The State of Wyoming is authorized to administer the Clean Water Act. BLM management actions or use authorizations will comply with all Federal and State water quality laws, rules and regulations to address water quality issues that originate on public lands. Provisions for the establishment of water quality standards are included in the Clean Water Act, as amended, and the Wyoming Environmental Quality Act, as amended. Regulations are found in Part 40 of the Code of Federal Regulations and in Wyoming's *Water Quality Rules and Regulations*. The latter regulations contain Quality Standards for Wyoming Surface Waters.

Natural processes and human actions influence the chemical, physical, and biological characteristics of water. Water quality varies from place to place with the seasons, the climate, and the kind substrate through which water moves. Therefore, the assessment of water quality takes these factors into account.

INDICATORS MAY INCLUDE BUT ARE NOT LIMITED TO:

- Chemical characteristics (e.g., pH, conductivity, dissolved oxygen);
- Physical characteristics (e.g., sediment, temperature, color); and
- Biological characteristics (e.g., macro- and micro-invertebrates, fecal coliform, and plant and animal species).

STANDARD #6

Air quality meets State standards.

THIS MEANS THAT:

The State of Wyoming is authorized to administer the Clean Air Act. BLM management actions or use authorizations will comply with all Federal and State air quality laws, rules, regulations and standards. Provisions for the establishment of air quality standards are included in the Clean Air Act, as amended, and the Wyoming Environmental Quality Act, as amended. Regulations are found in Part 40 of the Code of Federal Regulations and in *Wyoming Air Quality Standards and Regulations*.

INDICATORS MAY INCLUDE BUT ARE NOT LIMITED TO:

- Particulate matter;
- Sulfur dioxide;
- Photochemical oxidants (ozone);
- Volatile organic compounds (hydrocarbons);
- Nitrogen oxides;
- Carbon monoxide;
- Odors; and
- Visibility.

BLM WYOMING GUIDELINES FOR LIVESTOCK GRAZING MANAGEMENT

1. Timing, duration, and levels of authorized grazing will ensure that adequate amounts of vegetative ground cover, including standing plant material and litter, remain after authorized use to support infiltration, maintain soil moisture storage, stabilize soils, allow the release of sufficient water to maintain system function, and to maintain subsurface soil conditions that support permeability rates and other processes appropriate to the site.

2. Grazing management practices will restore, maintain, or improve riparian plant communities. Grazing management strategies consider hydrology, physical attributes, and potential for the watershed and the ecological site. Grazing management will maintain adequate residual plant cover to provide for plant recovery, residual forage, sediment capture, energy dissipation, and ground water recharge.

3. Range improvement practices (instream structures, fences, water troughs, etc.) in and adjacent to riparian areas will ensure that stream channel morphology (e.g., gradient, width/depth ratio, channel roughness and sinuosity) and functions appropriate to climate and landform are maintained or enhanced. The development of springs, seeps, or other projects affecting water and associated resources shall be designed to protect the ecological and hydrological functions, wildlife habitat, and significant cultural, historical, and archaeological values associated with the water source. Range improvements will be located away from riparian areas if they conflict with achieving or maintaining riparian function.

4. Grazing practices that consider the biotic communities as more than just a forage base will be designed in order to ensure that the appropriate kinds and amounts of soil organisms, plants, and animals to support the hydrologic cycle, nutrient cycle, and energy flow are maintained or enhanced.

5. Continuous season-long or other grazing management practices that hinder the completion of plants' life- sustaining reproductive and/or nutrient cycling processes will be modified to ensure adequate periods of rest at the appropriate times. The rest periods will provide for seedling establishment or other necessary processes at levels sufficient to move the ecological site condition toward the resource objective and subsequent achievement of the standard.

6. Grazing management practices and range improvements will adequately protect vegetative cover and physical conditions and maintain, restore, or enhance water quality to meet resource objectives. The effects of new range improvements (water developments, fences, etc.) on the health and function of rangelands will be carefully considered prior to their implementation.

7. Grazing management practices will incorporate the kinds and amounts of use that will restore, maintain, or enhance habitats to assist in the recovery of Federal threatened and endangered species or the conservation of federally-listed species of concern and other State-designated special status species. Grazing management practices will maintain existing habitat or facilitate vegetation change toward desired habitats. Grazing management will consider threatened and endangered species and their habitats.

8. Grazing management practices and range improvements will be designed to maintain or promote the physical and biological conditions necessary to sustain native animal populations and

plant communities. This will involve emphasizing native plant species in the support of ecological function and incorporating the use of non-native species only in those situations in which native plant species are not available in sufficient quantities or are incapable of maintaining or achieving properly functioning conditions and biological health.

9. Grazing management practices on uplands will maintain desired plant communities or facilitate change toward desired plant communities.

DEFINITIONS

ACTIVITY PLANS

Allotment Management Plans (AMPs), Habitat Management Plans (HMPs), Watershed Management Plans (WMPs), Wild Horse Management Plans (WHMPs), and other plans developed at the local level to address specific concerns and accomplish specific objectives.

COORDINATED RESOURCE MANAGEMENT (CRM)

A group of people working together to develop common resource goals and resolve natural resource concerns. CRM is a people process that strives for win-win situations through consensus-based decisionmaking.

DESIRED PLANT COMMUNITY

A plant community which produces the kind, proportion, and amount of vegetation necessary for meeting or exceeding the land use plan/activity plan objectives established for an ecological site(s). The desired plant community must be consistent with the site's capability to produce the desired vegetation through management, land treatment, or a combination of the two.

ECOLOGICAL SITE

An area of land with specific physical characteristics that differs from other areas both in its ability to produce distinctive kinds and amounts of vegetation and in its response to management.

EROSION

(v.) Detachment and movement of soil or rock fragments by water, wind, ice, or gravity. (n.) The land surface worn away by running water, wind, ice, or other geological agents, including such processes as gravitational creep.

GRAZING MANAGEMENT PRACTICES

Grazing management practices include such things as grazing systems (rest-rotation, deferred rotation, etc.), timing and duration of grazing, herding, salting, etc. They do not include physical range improvements.

GUIDELINES (For Grazing Management)

Guidelines provide for, and guide the development and implementation of, reasonable, responsible, and cost-effective management actions at the allotment and watershed level which move rangelands toward statewide standards or maintain existing desirable conditions. Appropriate guidelines will ensure that the resultant management actions reflect the potential for the watershed, consider other uses and natural influences, and balance resource goals with social, cultural/historic, and economic opportunities to sustain viable local communities. Guidelines, and therefore, the management actions they engender, are based on sound science, past and present management experience, and public input.

INDICATOR

An indicator is a component of a system whose characteristics (e.g., presence, absence, quantity, and distribution) can be observed, measured, or monitored based on sound scientific principles. An indicator can be evaluated at a site- or species-specific level. Monitoring of an indicator must be able to show change within timeframes acceptable to management and be capable of showing how the health of the ecosystem is changing in response to specific management actions. Selection of the appropriate indicators to be observed, measured, or monitored in a particular allotment is a critical aspect of early communication among the interests involved on-the-ground. The most useful indicators are those for which change or trend can be easily quantified and for which agreement as to the significance of the indicator is broad based.

LITTER

The uppermost layer of organic debris on the soil surface, essentially the freshly fallen or slightly decomposed vegetal material.

MANAGEMENT ACTIONS

Management actions are the specific actions prescribed by the BLM to achieve resource objectives, land use allocations, or other program or multiple use goals. Management actions include both grazing management practices and range improvements.

OBJECTIVE

An objective is a site-specific statement of a desired rangeland condition. It may contain either or both qualitative elements and quantitative elements. Objectives frequently speak to change. They are the focus of monitoring and evaluation activities at the local level. Monitoring of the indicators would show negative changes or positive changes. Objectives should focus on indicators of greatest interest for the area in question.

RANGE IMPROVEMENTS

Range improvements include such things as corrals, fences, water developments (reservoirs, spring developments, pipelines, wells, etc.) and land treatments (prescribed fire, herbicide treatments, mechanical treatments, etc.).

RANGELAND

Land on which the native vegetation (climax or natural potential) is predominantly grasses, grass-like plants, forbs, or shrubs. This includes lands revegetated naturally or artificially when routine management of that vegetation is accomplished mainly through manipulation of grazing. Rangelands include natural grasslands, savannas, shrublands, most deserts, tundra, alpine communities, coastal marshes, and wet meadows.

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RANGELAND HEALTH

The degree to which the integrity of the soil and ecological processes of rangeland ecosystems are sustained.

RIPARIAN

An area of land directly influenced by permanent water. It has visible vegetation or physical characteristics reflective of permanent water influence. Lakeshores and streambanks are typical riparian areas. Excluded are such sites as ephemeral streams or washes that do not have vegetation dependent on free water in the soil.

STANDARDS

Standards are synonymous with goals and are observed on a landscape scale. Standards apply to rangeland health and not to the important by-products of healthy rangelands. Standards relate to the current capability or realistic potential of a specific site to produce these by-products, not to the presence or absence of the products themselves. It is the sustainability of the processes, or rangeland health, that produces these by-products.

TERMS AND CONDITIONS

Terms and conditions are very specific land use requirements that are made a part of the land use authorization in order to assure maintenance or attainment of the standard. Terms and conditions may incorporate or reference the appropriate portions of activity plans (e.g., Allotment Management Plans). In other words, where an activity plan exists that contains objectives focused on meeting the standards, compliance with the plan may be the only term and condition necessary in that allotment.

UPLAND

Those portions of the landscape which do not receive additional moisture for plant growth from run-off, streamflow, etc. Typically these are hills, ridgetops, valley slopes, and rolling plains.

APPENDIX 9-4

RESOURCE MONITORING AND EVALUATION ALLOTMENTS

Number	Name	Grazing Management	Trend
03000	Gold Creek	changes needed	downward
03028	Eden Project	inconclusive	inconclusive
03202	Juel Place	satisfactory	static
03203	Spicer Group	satisfactory	static
03204	Grass Creek	satisfactory	upward
03206	Pulley Place	satisfactory	static
03207	Pacific Springs	changes needed	downward
03214	Johnson Place	satisfactory	static
03215	Cookston Ranch	satisfactory	static
03303	Jensen Meadows	satisfactory	upward
03304	Big Sandy Ranch	satisfactory	upward
03307	Hay Meadow	satisfactory	static
04001	Circle Springs	inconclusive	inconclusive
04002	Rife	inconclusive	inconclusive
04003	Alkali Creek	minor revisions	static
04003	Vermillion Creek	minor revisions	static
04005	Crooked Wash	satisfactory	static
04006	Horseshoe Wash	satisfactory	static
04007	Pine Mountain	changes needed	downward
04008	Red Creek	changes needed	downward
04009	Salt Wells	changes needed	downward
04010	Sugarloaf	changes needed	downward
04011	Spring Creek	inconclusive	inconclusive
04012	Henry's Fork	inconclusive	inconclusive
04013	Hickey Mountain	changes needed	downward
04014	Larson	satisfactory	static
04015	Stag Hollow	satisfactory	upward
04016	Donohoo	satisfactory	upward
04017	Poison Creek	satisfactory	upward
04018	Bald Hills	changes needed	downward
04019	Hanks	changes needed	downward
04020	Hisey Hollow	satisfactory	static
04021	Cedar Point	changes needed	downward
04022	Antelope Wash	changes needed	downward
04023	Circle Bar	changes needed	downward
04024	Sage	changes needed	downward
04025	Cottonwood Creek	changes needed	downward
04026	Peoples Canal	satisfactory	upward
04027	Mellor Mountain	inconclusive	inconclusive
13001	White Acorn	satisfactory	upward
13002	Little Prospect	satisfactory	static
13003	Little Sandy	changes needed	downward
13004	Prospect Mountain	minor revisions	static
13005	Poston	satisfactory	upward
13008	Bar-X	changes needed	downward
13009	Fish Creek	changes needed	downward
13010	Pine Creek	changes needed	downward
13011	Continental Peak	satisfactory	static
13012	Red Desert	satisfactory	upward
13013	Bush Rim	satisfactory	static
13014	Steamboat Mountain	satisfactory	upward
13015	Sands	changes needed	downward
13016	Fourth of July	satisfactory	upward
13017	Eighteenmile	inconclusive	inconclusive
13018	Rock Springs	minor revisions	static
13019	Sandy Pasture	inconclusive	inconclusive
13020	Buckskin Sandy	satisfactory	upward
13021	Mack Flat	satisfactory	static

APPENDIX 9-4

RESOURCE MONITORING AND EVALUATION ALLOTMENTS (continued)

Number	Name	Grazing Management	Trend
13022	Lombard	changes needed	downward
13023	Figure Four	minor revisions	static
13024	Big Sandy	satisfactory	upward
13025	Highway-Gasson	changes needed	downward
13026	Boundary	satisfactory	static
13027	Sublette	minor revision	sstatic
13100	Jack Ranch	satisfactory	static
13101	Upper White Acorn	satisfactory	static
13102	McCann Ranch	satisfactory	static
13103	Eaton Ranch	satisfactory	static
13104	Long Draw	satisfactory	static
13105	Erramouspe Ranch	satisfactory	static
13106	Dewey Place	satisfactory	static
13107	Middle Hay Place	satisfactory	static
13109	Sweetwater	minor revisions	static
13110	Dead Ox	satisfactory	static
13114	Chilton Place	satisfactory	static
13115	Houghton Place	satisfactory	static

WILD HORSE HERD MANAGEMENT AREAS

Area	Condition and Trend
Divide Basin	These grazing allotments appear to be in fair to good condition with much of the vegetation and erosion objectives being met. The overall herd objectives of diverse age, color, sex, and general good health condition have been reached and are being maintained.
White Mountain	The vegetative trend in the Highway Gasson and Lombard Allotments is upward in all key areas while the trend of vegetation on most checkerboard land of the Rock Springs Allotment appears to be static. The White Mountain wild horse herd is healthy and viable. Although not stated in the management plan, this herd has been managed to promote or increase horses with paint and appaloosa coloring.
Desert Common/Figure 4	The vegetative trend of all key species is down in the western third of the allotment. Key areas in the eastern portion of the allotment are exhibiting a slightly upward or static trend. The trend of riparian communities along the Green River appears to be static or downward. Wild horses are not causing resource damage because they are rarely present in the allotment. There is currently very little opportunity to manage sex, color, and age classes of wild horses in the Figure 4 Allotment.
Adobe Town	Range condition in the Green River Resource Area portion of the Adobe Town WHMA appears to be stable and in good condition. Herd populations within the planning area portion have been maintained at or near the desired levels.
Salt Wells Creek	Range conditions appear to be static in most areas that are affected by wild horse populations, but some areas that have seen consistent concentrations of wild horses during the growing season, appear to have experienced diminishing plant vigor and composition. Herd populations have remained at or near objective levels since institution of wild horse gathering.

APPENDIX 10-1
BIOLOGICAL ASSESSMENT

for

Green River Resource Area
Resource Management Plan

Bureau of Land Management
Rock Springs District

July 1995

APPENDIX 10-1

BIOLOGICAL ASSESSMENT

From 1989 through 1993, the Green River Resource Area staff specialists have been preparing a Resource Management Plan (RMP) which proposes future management on public lands in Southwest Wyoming. The project area includes 3.7 million acres of solid-block and intermingled public lands within a total land area of about 5 million acres. Resource activities discussed in the Plan include air, soil and water, cultural, fire, hazardous materials, lands and realty, livestock grazing, minerals management, off-road vehicles, recreation, timber, vegetation, watershed, wild horses, wildlife, and special management areas.

During the past several years, the U.S. Fish and Wildlife Service (USFWS) supplied lists of species to be considered while preparing the document. The present list was verified by phone consultation on May 17, 1993. Table 1 shows the plant and animal species which occur, may occur, or historically were found within the planning area.

General management prescriptions for each resource activity are provided in the Draft Environmental Impact Statement (DEIS) which was sent your agency under separate cover. You should refer to this document for specific resource management prescriptions under the preferred alternative (Volume 1, Chapter 2).

I. PROJECT DESCRIPTION

In 1988, the Green River Resource Area was directed to prepare a single planning document to combine Unit Resource Analysis and Management Framework Plan documents for the Big Sandy and Salt Wells Planning Units. A massive effort at resource data storage was undertaken to implement the Geographic Information System (GIS) on the 5-million-acre planning area. The new RMP incorporated current laws and regulations and public land resource initiatives to guide long-range planning decisions. As a result of this effort, several alternatives for resource management were considered.

In the DEIS, the Preferred alternative (with minor modification) is the recommended direction the BLM and public land users (through letters and comments) wish to pursue (reference Vol. 1, Chapter 2 and Vol. 2, Chapter 5). Other alternatives considered were Alternative A (also called the "no-action" alternative), Alternative B (the commodity alternative), and Alternative C (the protection alternative).

II. CURRENT STATUS AND HABITAT USE BY THREATENED AND ENDANGERED SPECIES

Eight federally listed endangered wildlife species inhabit or may have inhabited the resource area. Endangered species include the black-footed ferret, bald eagle, peregrine falcon, whooping crane, Colorado squawfish, humpback chub, razorback sucker, and the bonytail chub.

Surveys have been conducted for the Colorado River squawfish and humpback chub, but they are now considered extirpated in southwest Wyoming. We will only discuss effects caused by water depletion for these species as the Green River Resource Area has not been identified as critical habitat by the U.S. Fish and Wildlife Service.

A. Listed Species

The following information is taken from the Green River Management Situation Analysis (MSA). Numerous studies and surveys, and a variety of reference material were used in preparing information discussed in the MSA. The volume of printed material requires condensation for discussion in this analysis. The conflict analysis following the discussion of each species may be viewed as an analysis of anticipated or potential impacts.

1. Black-Footed Ferret (*Mustela nigripes*)

Population Distribution

Populations of black-footed ferrets (if any) are undetermined in the resource area. Historical documentation exists of the presence of ferrets to as late as 1963 when a ferret and kits were commonly seen by several persons in the southwest part of Eden Valley. Other areas where ferrets are presumed to have occurred are Sublette Flats, Seedskadee National Wildlife Refuge, and the Red Desert.

Dr. Tim Clark has been one of the primary researchers of ferrets and their historical presence in Wyoming until and since the 1981 discovery of a colony at Meeteetse, Wyoming. His information on historical sightings was used extensively in this analysis. Each year ferrets are reported and the BLM or the Wyoming Game and Fish Department (WGFD) follows up with field surveys and personal interviews. The U.S. Fish and Wildlife Service has conducted some surveys and prairie dog colony inventories in the resource area since 1981. Surveys and inventories of prairie dogs have been conducted in the resource area since 1975 with nearly 60% of the area completed. Some of the surveys were contracted by the BLM, some were performed by BLM biologists and summer temporaries, and others were done by other agencies. We also receive information as a result of surveys required to clear land use actions under Section 7 of the Endangered Species Act.

From 1851, when the first ferret was described by Audubon, to 1976, 145 sightings of at least 167 animals were evaluated as valid sightings or likely so. Of the 145 reports, 93 were classified as positive, 37 probable, and 15 possible. The diversity and competence of respondents lends credence to their sightings; such evidence overwhelmingly indicates that ferrets may still exist in Wyoming and possibly this resource area. Remains of 23 ferrets from museum and private collections were located. Of the 145 different animals reported, 35 or 36 were of dead animals (10 or 11 killed in coyote traps, two in badger traps, one was shot, one a road kill, and one drowned in a stock tank). Additional mortality was attributed to poisoning for coyotes by several respondents. Young ferrets were reported in three instances. Table 2 lists sightings in or very near the resource area boundary and include additional sightings for 1975 through 1992.

Habitat Requirements

Potential areas of ferret habitat can be delineated due to their association with prairie dogs and prairie dog colonies although their diet may also contain some other small mammals and birds. Based upon archaeological and historical evidence, researchers have concluded that the black-footed ferret has never been very abundant. Primarily nocturnal, ferrets spend much of their time below ground and are rarely seen during daylight hours. This behavior is probably one of the reasons for so few sightings recorded in this planning area and elsewhere. An experimental population is anticipated for reintroduction in prairie dog habitats in Colorado adjacent to Hiawatha and the Vermillion Creek area.

Conflicts

Past animal damage control programs probably have had the greatest impact on ferret mortality.

From the 1920s until the mid-1970s, predator control through trapping and poisoning resulted in some black-footed ferret mortality (67% of positive ferret reports). Secondary poisoning of ferrets is also known to have occurred from highly toxic rodenticides (or predicides) used in prairie dog eradication programs. Loss of ferret prey and secondary poisoning of ferrets must be considered in animal damage control plans and activities.

Varmint hunters seek out prairie dog colonies for target shooting. Because few people can distinguish between a ferret, a burrowing owl, or a prairie dog peering over the prairie dog mound, it is to be expected that some black-footed ferrets have been killed accidentally by target shooters. Some coyote trapping activities have also resulted in ferret mortality during the past. These activities need some measure of control, and agencies need to initiate a proactive campaign to educate hunters and trappers about ferret identification and their habits and avoidance programs.

Land use activities such as rights-of-ways, energy developments, Special Land Use and Free Use permits, urban expansion, mineral extraction, and grazing projects can reduce or fragment ferret habitat and therefore require inventory and clearances. Habitat losses have been minimized through analysis, planning, and coordination.

Status of the black-footed ferret is unlikely to change over the analysis period as either a result of implementation of the preferred alternative or ferret reintroductions. Ferret populations are expected to remain low despite BLM efforts to minimize activities which could impact prairie dog colonies.

2. Bald Eagle (*Haliaeetus leucocephalus*)

Population Distribution

Bald eagles are classed as partly migratory. Bald eagles from the northern states and Canada tend to migrate greater distances than do local eagles. About the second week of October, bald eagles begin arriving on the Green River. This coincides with the kokanee salmon and brown trout run which is probably a primary source of autumn food. By Thanksgiving, bald eagles can be found on the Big Sandy and Little Sandy rivers, in Eden Valley, and along the Black's Fork and Henry's Fork rivers. The bald eagle is a winter resident along the Green River and Flaming Gorge Reservoir. Few studies have been conducted to locate winter roosts in the resource area; however, aspen and conifers along the headwaters of Currant Creek, conifers on Black Mountain, and other areas may be suitable for roosting. A known roost and activity area is in the Henry's Fork at the confluence of Antelope Creek. Primarily on private land, as many as 11 bald eagles may be seen here in mid-winter.

Habitat Requirements

This bird is often called the fish eagle and with some justification. Its main food item is fish, it nests in association with water, and it most often winters where fish are available. Additional food items include ducks, coots, rabbits, carrion (particularly road kills), and small rodents. Bald eagles are found primarily along rivers and inland lakes where their nests are usually located in large coniferous or deciduous trees. In the Great Basin physiographic region which describes the resource area, streams and rivers with trees, especially conifers, are not common. There are potential nesting opportunities along the Green River drainage, the Henry's Fork River, and other waterways occupied by nesting colonies of great-blue heron. The pioneering trend for bald eagle nesting began in the upper Green River system, and activity moved slowly downstream to an island nest outside the resource area in 1985. Currently, the only known active bald eagle nesting sites are on the Green River above the Big Sandy confluence on Seedskadee National Wildlife Refuge and just outside the Resource Area on the upper Green River. In 1991, the Seedskadee pair of eagles moved out of the heron rookery to another island farther downstream within the refuge.

The bald eagle is fully protected by the Endangered Species Act of 1973 (*Federal Register* 43:6230-6233, February 14, 1978), the Bald and Golden Eagle Act, the Migratory Bird Treaties, and Wyoming Game and Fish Department laws.

Conflicts

The accelerated decline in numbers of the species since World War II has been attributed to several factors. Both the peregrine falcon and the bald eagle have suffered reproductive problems due to organochloride pesticide poisoning. Shooting is another significant factor, causing an estimated mortality of 75% of the fledglings in some areas. Electrocution, while still a problem, has been reduced through alteration and redesign of many power transmission systems.

The primary factor influencing the bald eagle's habitation of the area is available undisturbed habitat and spatial consideration from human activities. Great blue heron nests in cottonwoods on the Green River can provide suitable nesting for bald eagles over the short term. The trend in cottonwood replacement is toward few or no seedlings reaching maturity. Several reasons for this habitat alteration include fall and winter cattle grazing, low incidence of flooding, and high populations of beaver. Without periodic flooding or hand planting of seedlings and positive livestock control, most perennial streams may be reduced to a grass, weed, and sedge riparian area within the next 30 to 50 years. The BLM does not manage most of the Green River and the only currently active nest sites within the Green River Resource Area are on Seedskadee National Wildlife Refuge, administered by the U.S. Fish and Wildlife Service.

Raptors are especially susceptible to accidental poisoning through predator control programs. Poison baits set out to attract coyotes have caused the loss of at least 17 bald eagles in Wyoming during the period 1973-1991. Recent golden eagle losses have occurred in Wyoming and the resource area as a result of unauthorized poison baits placed on public and state lands. Bald eagles are also at risk to this type of mortality.

Available habitat is being impacted by greater year-long recreation and human disturbance. Oil and gas activity within the flood plain above Fontanelle could displace bald eagle use year-long. Current leasing stipulations provide seasonal habitat protection during exploration, but does not address gas field activity during production, maintenance, and operation, nor do they address cumulative impacts to raptors. Increasing use of the river from floatboaters, anglers, campers, and hunters reduces open space for birds of prey. Fall and winter fishing will increase as river habitat improves from silt load damage following drainage of Fontanelle Reservoir. Proposed introduction of steelhead trout will also increase winter recreational activity on the river; however, the steelhead (and kokanee) would be a source of food for wintering bald eagles.

There appears to be a subtle increase in wintering bald eagles within the resource area over the past 20 years. Activities associated with the Preferred Alternative should have little or no impact in altering the present status of the bald eagle.

3. American Peregrine Falcon (*Falco peregrinus*)

Population Distribution

Potential peregrine falcon nesting habitat exists in a variety of areas such as along the Sweetwater and Green rivers on cliffs, in canyonlands north of Reliance, and on Oregon Buttes, Black Rock, or Pine Butte. Peregrines could also inhabit Steamboat Mountain, canyons near LaBarge, and the cliffs of Canyon Creek. Sightings of peregrines in the resource area are rare and no active nests are currently known to exist here. In 1976, a peregrine was observed by a BLM contract survey crew on Oregon Buttes. A 1977 sighting on the Green River above the golf course was verified and that year a young peregrine was seen on Pine Butte by a raptor researcher. A 1979 sighting on the Sweetwater River gave hope of finding an aerie on uninventoried cliffs there. That inventory has not yet been performed. Migrating peregrines are often sighted along the Green River during spring and fall.

Peregrine hacking into the Greater Yellowstone Ecosystem has led to somewhat unknown success with some birds returning to the Greater Yellowstone Ecosystem. Many peregrines are showing up outside the Greater Yellowstone Ecosystem and may be the result of this extensive planting effort. Currently, hack sites just outside the resource area are being tended in hopes of establishing peregrines in southwest Wyoming.

Habitat Requirements

The presence of a nesting cliff is a preferred habitat component, with falcons at times nesting on slopes, river cut-banks, tall buildings, and occasionally on sand dunes. Principal food items of peregrines are passerine birds (perching birds), shorebirds, and waterfowl. They are successfully habituating metropolitan areas on high-rise buildings, although mortality is high among young birds.

Management efforts to improve the number of peregrines and reduce mortality would include: (1) Education of public land users and school groups concerning the biological role of peregrines and other raptors in our natural ecosystem, (2) Identified peregrine aeries would be given total protection and potentially suitable habitat would be given status preventing its alteration or disposal, and (3) Suitable hack sites would be identified and the Bureau would cooperate in establishing peregrines in these areas.

Conflicts

The apparent reason for the precipitous decline of the species in the United States, beginning in 1947, was the loss in reproduction due to sublethal chronic poisoning from organic chlorine pesticides. This poisoning is manifested in the thinning of egg shells which results in accidental breakage. Often termed the world's "fastest" bird, the peregrine is highly sought by falconers. The high prices paid for eggs and young have aggravated the precarious position of the bird and have greatly complicated management. Misguided efforts by stockmen to "control" predators have also been a problem. In 1971 or 1972, a pair of nesting peregrines along the Green River were reported to have been shot on their nest. Mortality and poor nest establishment are related to one or more of the following impacts: habitat encroachment or fragmentation, wetlands loss, riparian habitat degradation and loss, agriculture, pesticides and hazardous wastes, recreation (e.g., ORV, float-boating, etc.), shooting, and drought. Special features management (cliff, riparian, and wetland habitats) should improve prey base and open space for this species. No adverse impact to this species is anticipated from implementation of this RMP's Preferred Alternative.

4. Whooping Crane (*Grus americana Lin.*)

Population Distribution

The bird was fairly abundant prior to 1800 and was found distributed in wetlands across North America. Market hunting in the 1800s and into the early 1900s led to a rapid decline in whooping crane populations until the species was nearly extirpated in the 1940s. The remaining flock bred in Alberta, Canada at Wood Buffalo Park, migrated across the Great Plains, and wintered in Aransas National Wildlife Refuge, Texas.

Captive breeding programs, cross-fostering, and translocation have increased whooping crane numbers to over 100. The Wyoming Game and Fish Department has been monitoring whooping crane movement and habitat use in Wyoming since 1982. Following the 1988 breeding season, monitoring efforts were greatly reduced due in part to lack of success with the attempt to establish breeding pairs at Grays Lake National Wildlife Refuge, Idaho. The Grays Lake program has presently abandoned the whooping crane program as other options are being examined.

As of March 21, 1990, only 13 whooping cranes were known to be alive and free-roaming in the Grays Lake flock. Several of these found their way into the Green River Resource Area over the past five or six years. In 1986, two Colorado State University summer wildlife volunteers working for BLM in the Farson area observed a lone whooper on several occasions. During 1987 and 1988, a pair did spend part of the summers in Farson grain fields and wetlands. Personnel at Seedskadee National Wildlife Refuge also reported lone migrating whoopers visiting the Green River over the past four years.

Habitat Requirements

Whooping cranes select muskeg, prairie potholes, and marshes. Their nest is a flat mound in the marsh usually containing two buff, blotched eggs. Food habits are similar to the resident sandhill crane (*Grus canadensis*). Though largely vegetarian, they eat some animal food. Insects, snails, frogs, mice, lizards, snakes, and fish have been recorded in their diet. Besides eating seeds of grains and wild plants, they consume herbaceous foliage, underground stems, tubers, and roots.

The whooping crane is fully protected under the Endangered Species Act of 1973, the Migratory Bird Treaties, and Wyoming Game and Fish Department laws.

Conflicts

The greatest mortality among whoopers is collision with powerlines, cables, and fences along streams, wetlands, and marshes. These artificial intrusions on the Green River, Henry's Fork, Flaming Gorge, and in the Eden/Farson area should be considered for modification or removal. New rights-of-way grants presently consider the impacts to large migrating birds and require appropriate mitigation.

Major facilities and activities which conflict with whooping crane habitat include: powerlines/river cables, riparian fences, recreation (e.g., ORVS, camping, etc.), shooting, wetlands conversion, riparian habitat losses, agriculture, and water diversions. Proactive wetland and riparian management discussed in the plan should provide positive benefits and should not adversely affect present status of this species. Better planning of highlines and potential flight obstacles now and in the future will reduce accidental mortality.

5. Bonytail Chub (*Gila robusta elegans*)

Distribution

This native nongame fish was once abundant throughout the Colorado River System, based on reports at the turn of the century (Cope 1872; Cope and Yarrow 1975; Kirsch 1889; Jordan and Evermann 1896). They were apparently found in suitable habitats in the Green River and tributaries all through western Wyoming. As early as 1960, bonytail chub were reported in decreasing numbers in the Lower Basin. The species was common in the Green River within Dinosaur National Monument from 1964 to 1966, but less common from 1968 to 1971. Presently the most abundant populations are in the Grays Canyon of the Green River in Utah.

Habitat Requirements

Bonytail chub apparently occupy deep, swift, rock-sand areas in main channels of the Green River. Water temperatures in desirable habitat are important in that cold water discharges from dams displaces them downstream until water temperatures sufficiently increase. Lateral and in-stream movement studies of this species indicated they moved very little from their release point over a sixty-day period in summer. There is some vertical and lateral movement in the stream between daylight hours and dark.

Conflicts

Impacts to the bonytail chub are about the same as for the other rare Colorado River fishes. Water depletions, water diversions, reduced stream flows, and reduced water quality affect the potential to bring this species back from the brink of extinction. Low numbers of bonytail chub and the absence of natural reproduction strongly suggest a trend toward extinction. Actions taken as described in Section IV, page 21 of this document may slow the rate of water depletions to the Green River System and to this species' habitat.

6. Colorado Squawfish (*Ptychocheilus lucius*)

Population Distribution

The Colorado squawfish is found in the Colorado River drainage. Before construction of Flaming Gorge Dam, this fish lived in the Green River of Wyoming. Use of "rotenone" in removing undesirable fish species prior to closure of gates on Flaming Gorge probably extirpated it from Wyoming's portion of the Green River. A recent discovery of squawfish near Baggs, Wyoming reestablishes the fish as occurring in Wyoming.

Habitat Requirements

Colorado squawfish are generally found in the large rivers of the Colorado system, although they have been found in medium-sized tributaries. They are the largest American minnow, reaching 80 pounds in the lower Colorado River. Young squawfish prefer slow backwater areas. Adults use a variety of habitats but are specialized for habituating fast-moving, silty, canyon waters. Spawning occurs in summer (July, August) at water temperatures of about 20°C. The preferred spawning habitat is probably over gravel in riffles. The Colorado squawfish feeds on crustaceans and small insect larvae when young. As squawfish become larger (over 8 inches (200 mm)), they become carnivorous. Although known from the resource area in the first half of the century, alteration of the Green River through changes in flow regimes and dam building has apparently eradicated this species from southwest Wyoming waters. As suitable habitat for this species no longer exists in the Green River of Wyoming, it may never again reoccupy historic habitat.

Conflicts

Environmental problems as a result of public and private land development and construction activities leading to the probable extinction of Colorado River squawfish and their spawning in the Green River Resource Area include: dam construction, river impoundment, diversions/augmentations, water pollution, hazardous wastes, chemical spills, irrigation, and agriculture. Refer to Section IV, page 21 of this document dealing with mitigation for Green River threatened and endangered fish species.

7. Humpback Chub (*Gila cypha*)

Population Distribution

This fish is endemic to the Colorado River basin, but found only in fairly restricted areas. One of its populations occurred in the Green River of Utah and Wyoming, but the species is probably extinct since the development of Flaming Gorge Dam. It is known to have occurred in the Green River and its tributaries after the turn of the century. Specimens of this fish were taken on the Black's Fork and Bitter Creek prior to major dam construction in southwest Wyoming.

Habitat Requirements

The humpback chub is generally found in steep gradient canyons in deep, swift water with a rocky substrate. Little is known about its life history. Humpback chub have been observed feeding on the surface, and have also been caught on hook and line. Humpback chub spawn in early summer, and young prefer quiet backwater areas during their first year of life. Adults may reach 10 to 16 inches (250 mm) in length.

Conflicts

Conflicts with continued existence of this fish species is the same as for the Colorado River squawfish and other sensitive fish species. Reference Section IV, page 21 of this assessment for a discussion on Green River impacts and appropriate mitigation.

8. Razorback Sucker (*Xyrauchin texanus*)

Population Distribution

Originally found as far up the Green River as the present location of the City of Green River. In unimpounded waters, the razorback is limited to Upper Basin rivers, especially the Green, Yampa, and mainstream of the Colorado. The largest population, estimated at about 1,000 adults, lives in the Green River near Jensen, Utah. This species has not been documented in Wyoming in over 30 years.

Habitat Requirements

The fish thrives in torrential river rapids and swift water. This fish is one of the largest suckers in North America, weighing as much as 12 pounds. They have spawned in backwater flooded gravel pits in Colorado and up drainage ditches and culverts. The razorback was so common at one time before the turn of the century that a commercial fishery exploited this species for food. For some unexplained reason, populations of this fish have not been documented to successfully spawn in recent years.

Conflicts

Elimination of clear, swift whitewater areas in Wyoming's portion of the Green River has removed the potential habitat suitable for this species. Competition with non-native fish species is also given as a reason for population declines within suitable habitat. The razorback hybridizes with other sucker species in the Upper Colorado River Basin. Behnke and Benson (1980) summarized possible reasons for the decline as dams, impoundments, and land and water use practices. These human-made features drastically modified natural flows and river channel characteristics. They blocked spawning migrations and changed temperatures. Channelization, diversions, dams, and water use patterns in the main-stem and tributary streams have reduced or nearly eliminated embankments, backwaters, and off-stream impoundments needed for successful spawning. The RMP's Preferred Alternative should have no effect on status of the razorback sucker over the 20 year life of the plan.

B. Proposed Species

Small Rockcress (*Arabis pusilla*)

Small rockcress is a Category 1 Candidate species, and has been proposed for Federal listing as either Threatened or Endangered. The Nature Conservancy ranks this plant as G1S1, extremely vulnerable to extinction globally and extremely vulnerable to extirpation statewide. Small rockcress is known from only one location in the southern Wind River Range in Fremont County, Wyoming. The single known population occurs on about 6 acres of BLM-managed public land near Pine Creek.

Small rockcress is found in crevices and on sparsely vegetated, very coarse soil in granite-pegmatite outcrops surrounded by sagebrush grassland. Most granite-pegmatite outcrops in the South Pass area were surveyed in 1986 by the Nature Conservancy-Wyoming Natural Diversity Database (Marriott 1988). Other suitable habitats along the Lander Cutoff were spot-checked. No other populations were located during that survey. More plants were found in the immediate area during a later survey conducted for the U.S. Fish and Wildlife Service (Dorn 1990). The population size is estimated at 600 individuals. Motorized recreational activity and livestock grazing in the area have been identified as threats to the population. The extremely restricted geographic range of this species makes it highly vulnerable to extinction.

A Habitat Management Plan has been developed for the protection of the small rockcress and its habitat. Protective management actions are scheduled to begin in 1994. These actions include annual monitoring, road closure and fencing to protect habitat from livestock and motorized vehicular damage. Seeds from *Arabis pusilla* will be collected and deposited at the Center for Plant Conservation (CPC) at the Denver Botanic Gardens. Attempts will be made by the CPC to propagate the species for plant studies and for emergency stock in the event of catastrophic destruction of the population.

General habitat management for Threatened and Endangered and Candidate Status plants is discussed in the Preferred Alternative.

C. Category 2 Candidate Species

1. Lynx (*Felis lynx*)

The last known lynx in the resource area was taken by a hunter in the 1960s just north of Big Sandy Reservoir. This area is out of its [illegible] habitat, although the cat probably came from the Wind River Mountains or foothills. Cat tracks are often seen in the Prospect Mountains and along the Wind River Mountains but these have always identified as cougar or bobcat. Commercial timber removal could remove some valuable cover, but size of sale blocks and select cutting practices should reduce impacts to this species. Modest restrictions in the way animal damage control is conducted will help reduce incidental take of this species.

2. North American Wolverine (*Gulo gulo luscus*)

No sightings of wolverine nor their scat or tracks have been made in or adjacent to the resource area in over 30 years. They are not expected to naturally occur in the resource area within the life of this RMP. The foothills of the Wind River Mountains, the Prospect Mountains, and lands adjacent to the high Uinta Mountains provide some habitat suitable for wolverine. They may presently occupy habitats in the Wyoming Range, outside the resource area. Animal damage control activities and human encroachment on undeveloped forested lands are the primary conflicts with this species.

3. Pygmy Rabbit (*Sylvilagus idahoensis*)

The Wyoming population of this small rabbit was first described by Tom Campbell of Biota Research in a paper of 1980. It was thought to occur primarily within sandy hummock habitats south and west of Little America. The Nature Conservancy has continued inventory of this species in the resource area during recent years and conclude the population is interspersed within desert cottontail (*S. audubonii*) populations. Pygmy rabbits are found over a broader area than first thought, now extending into the Red Desert and south into South Baxter Basin. With dramatic cyclic trends in rabbit species, the long-term effect of mineral development, road development, and other factors of habitat loss cannot be realistically assessed. Hunting is not considered to be a factor in long-term population alteration. Some discussion of management direction toward commodity development discussed in the Preferred Alternative may adversely impact habitat for this species.

4. Black Tern (*Chlidonias niger*)

This species is apparently migrant through the resource area although sightings are rare. With few acres of public land wetlands available in the resource area, suitable habitat for the black tern is limited. The policy of improving riparian habitats within ten years should provide enhanced habitat for this species.

5. Ferruginous Hawk (*Buteo regalis*)

Historic nesting habitat resurveys in recent years (1984-1989) show a general decline in the nesting success of these birds. This may, in part, be due to the prolonged drought and recent population declines of rodents and other small prey. An effort should be made to determine what specific factors are responsible for the decline in ferruginous hawk nesting activity and the management efforts required to reverse this trend. A more thorough inventory of the resource area in all habitat types will be necessary to identify ferruginous hawk nests and should be undertaken as a part of the Wildlife 2000 program. Current management direction and management practices, discussed in the Preferred Alternative and Alternative C of the plan, are protecting this species seasonally during nesting and providing some measure of nesting habitat protection.

6. Loggerhead Shrike (*Lanius ludivicianus*)

Older surveys performed in the resource area (1972-1979) had shown that the bird commonly nested here, primarily in greasewood habitats. Habitat components found in nesting areas were greasewood, cactus, and sometimes barbed-wire fences. Generally, there appears to be a decline in the local populations over the past 20 years. Locating nests is becoming difficult and sightings of loggerhead shrike are diminishing. Again, this may be due to the recent long-term drought which occurred over the resource area and reduced numbers of insects available as prey. Proposed vegetative treatments

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are not planned in low-fuel greasewood habitats and should have little effect on this species. Mineral developments requiring surface disturbance will require a field check for this species prior to allowing the dirt work. Some management actions directed at commodity development within the Preferred Alternative could adversely affect habitat for this species.

7. Long-Billed Curlew (*Numenius americanus*)

These birds have historically never been common in the project area. Some nesting was recorded in the mid-1970s on the Henry's Fork and at Maggie Spring on Mellor Mountain until heavy livestock grazing and the drought impacted their habitat. Some observations are noted annually but the frequency is less each year. A pair were seen on upper Bitter Creek in 1993, but no nesting was recorded. In western Wyoming, they are most commonly seen during spring migration and casually during late summer. Long-billed curlews are known to occupy and habitats on prairie dog colonies in the tall grass prairie (Nebraska). Proposed management under the Preferred Alternative should promote habitat improvement of wetlands and riparian areas for this wildlife species.

8. Mountain Plover (*Charadrius montanus*)

Taxonomic changes recently placed this bird with other plovers and killdeer. The bird is of bland coloration about the size of a killdeer without the striking white marking on the head and breast. Not much is known about the occurrence of this bird in the resource area, although it is known to have occurred in the Henry's Fork area as recently as 1984. Wetland and riparian habitat loss can be associated with apparent declines of long-billed curlew in the resource area. Accidental shooting has not been documented as a problem here. Adoption of the Preferred Alternative to the plan should have no adverse effect on status of this species.

9. Northern Goshawk (*Accipiter gentilis*)

This bird has a tough time finding suitable nesting within the planning area because of limited forest habitat. Only two known active nests were known within the resource area. These were located in mixed conifer-aspen habitats during the late 1970s. No recent nesting activity in the resource area has been recorded for the Northern goshawk. Woodcutting, mineral extraction, and recreation may impact suitable and successful nesting. Disturbance areas should be monitored for the presence of this bird prior to permitting disruptive or destructive activities. Some actions (primarily mineral exploration and timber harvest) discussed in the Preferred Alternative may adversely impact habitat for suitable occupancy by this species.

10. Western Snowy Plover (*Charadrius alexandrinus*)

This bird was found on many desert pavement areas of rounded cobble during the early and mid-1970s. Nesting occurred at Lombard Buttes, northwest of Gasson Bridge, Buffalo Hump, and a few other areas. No recent nesting in the resource area has been recorded. There is no apparent reason for decline of this species in the resource area as most suitable habitats remain unaltered. Occupied habitats in pristine gravel flats are presently not known to be used by these birds. Implementation of the Preferred Alternative should have little effect on status of this species if habitats are cleared prior to permitting land use activities. Since this desert pavement and cobble habitat is widely dispersed and relatively uncommon, these areas could easily be avoided by surface disturbance activities.

11. White-Faced Ibis (*Plegadis chihi*)

These birds are commonly seen in the resource area spring through fall. A large nesting colony once used the Old Eden Reservoir slough annually until drought conditions began in 1986. Loss of this water source and loss of suitable habitat at Old Eden Reservoir slough since then, has resulted in no known nesting by the species at this location. The prolonged drought may result in losing birds aware of this nesting site and could require recolonization by pioneering birds.

Some nesting and staging by ibis has been noted at the Tenmile Marsh wetland near Point-Of-Rocks. Sightings of white-faced ibis were common in wetland habitats of the Sand Dunes, the Black Rock Creek, and along streams in the resource area prior to the drought.

Maintaining some residual cover along streams and standing waters is necessary for nesting of the white-faced ibis. Fox and raccoon populations may be predatory on ibis nesting activity on waterways and wetlands. Management prescriptions discussed in the Preferred Alternative and Alternative C would aid in improving and maintaining residual nesting and escape cover, maintaining healthy riparian habitats, and helping maintain flooded areas within suitable nesting habitat.

12. Colorado River Cutthroat Trout (*Oncorhynchus clarki pleuriticus*)

This fish is native to the Colorado River system. Within the Green River drainage of Wyoming are found several "good" representative populations.

Colorado River cutthroat trout evolved in isolation from rainbow and other trout. Native cutthroat trout rapidly disappeared from the main streams of the upper Green and upper Colorado rivers and tributaries after nonnative trout were introduced. This candidate 2 cutthroat trout species is only slightly hybridized and occurs in severely degraded streams in southwestern Wyoming. Within the last 20 years, they were known from waters of Red Creek, Trout Creek, and Currant Creek. These streams are characterized as having submarginal trout habitat as a result of heavy livestock grazing and water diversions for irrigation.

The most significant habitat feature in small and moderate-sized streams are undercut banks, which in turn depend on extensive vegetative cover of the exposed bank. Livestock overgrazing and trampling present the greatest threat to the integrity of headwater stream habitat quality in the resource area as well as throughout the range of this species. Management of the Currant Creek watershed and stream is designed specifically to maintain and enhance habitat for this species.

This fish is a State of Wyoming "sensitive" species and it has been recommended for "threatened" status by the U.S. Department of the Interior. It is currently classed as a category 2 Federal candidate species. Management actions discussed in Alternative C and the Preferred Alternative should maintain and enhance habitat for this species eventually leading to a downlisting of status.

13. Flannelmouth Sucker (*Catostomus latipinnis*)

The species selects river runs, shorelines, eddies, and pools of main river systems. During the 1970s and early 1980s, they migrated up the Green River from Flaming Gorge Reservoir in large numbers to spawn in the Big Sandy River, Slate Creek, and even into Alkali Creek. Spawning fish were usually 12-16 inches in length and averaged about one pound in weight. They provided a good forage base for great-blue herons which nested on Seedskadee and the Green River along with mink and other fish predators. The last known spawning run of significance was 1985, with few fish spawning up the Big Sandy River in 1992 and 1993. Improved livestock grazing management on spawning streams and implementation of the Preferred Alternative or Alternative C should benefit habitat for the flannelmouth sucker.

14. Leatherside Chub (*Gila copei*)

The leatherside chub is an "introduced" species into the Green River system and a native of Bonneville Basin streams. They are found in pools and riffles of cold to cool creeks and rivers in moderate currents. Present status of this chub in rivers and streams of the resource area is unknown.

Mitigation for Colorado River fish habitat water depletions as discussed in Section IV, page 21 of this document should help reduce habitat loss for this fish species.

15. Roundtail Chub (*Gila robusta robusta*)

This large minnow grows up to 17 inches in length and is native to the Green River and its tributaries. As with most other chubs and suckers native to this area, it is well adapted to strong river currents. Habitat consists of river bottoms with boulders and overhanging cliffs, numerous riffles, and shallow runs. The fish was relatively common in much of the Green River drainage up to the 1960s when populations gradually declined. They were rated as "abundant" in Burnt Lake as late as 1970. Anything the BLM proposes as benefitting other Colorado River fish species will benefit the roundtail chub. If proposals for riparian and stream habitat enhancement measures are implemented in the Preferred Alternative in the DEIS, we could expect improved habitat for this fish species.

D. Threatened, Endangered, Candidate, and Sensitive Plant Species

Fifteen plants are discussed under the Threatened and Endangered and Candidate Plant Species section of the Management Situation Analysis (MSA) to the RMP. Table 3 describes the Candidate species and their classification.

The Bureau of Land Management is mandated by law and policy to protect and manage Threatened, Endangered, Candidate, and Sensitive plant species and their habitat identified by the U.S. Fish and Wildlife Service. BLM is also required to protect and manage for Sensitive species jointly identified and agreed to with the appropriate state agency. The State of Wyoming does not have an official list of Sensitive, Threatened, or Endangered plant species. Currently, a single plant species, *Spiranthes diluvialis*, has been listed as Threatened in Wyoming, none as Endangered. Several other species occurring within Wyoming are being considered under formal listing procedures. State and federal agencies have historically given these species special consideration until their status is fully assessed.

The BLM provides funds for approximately two status surveys to be conducted annually for federally listed species occurring on the Rock Springs District. Approximately 1/4 of the known Candidate species in the Green River Resource Area have been surveyed to date. Status surveys for three species (*Townsendia microcephala, Thelesperma caespitosum*, and *Lesquerella macrocarpa*) were completed in the summer of 1994.

Complete floristic inventories are currently being conducted on a large scale in the Bureau; information available on each species varies as do potential threats and opportunities for management and protection. A floristic survey is being conducted in the Rock Springs District from 1994 to 1996. Site specific and general inventories have been conducted for some species; however, areas inventoried, but having no candidate plants, were not mapped and/or the information was never placed in reports that could be referenced. Approximately half of the known Candidate species in the Green River Resource Area have been surveyed to date. Permanent transects have been established and baseline information gathered for these species.

Monitoring efforts for federally listed Candidate species in the Rock Springs District have been sporadic in the past. Establishment of new monitoring programs for those species currently lacking them, and the continuation of established monitoring efforts is a priority of the Botany program in the District. These results will provide managers with information regarding population dynamics and potential threats.

Of the 15 known Candidate species in the Green River Resource Area, 11 are currently classified by the U.S. Fish and Wildlife Service as Category 2 under review for listing as Endangered or Threatened. One, the small rockcress (*Arabis pusilla*) is Category 1, proposed for listing as Threatened or Endangered, and three are classified as Category 3c.

The following information regarding the fifteen individual species is a compilation of information prepared by the Wyoming Natural Diversity Database (WNDDB) (Marriott 1988) for the BLM, individual status survey reports prepared by WNDDB under contract with the BLM, subsequent unpublished field reports to the BLM by the WNDDB, and information provided by the U.S. Fish and Wildlife Service.

1. Meadow Pussytoes (*Antennaria arcuata*)

Meadow pussytoes is a Category 2 Candidate under review for Federal listing as either Threatened or Endangered. The Nature Conservancy ranks this plant as G2S2, very vulnerable to extinction globally and very vulnerable to extirpation statewide, due to its restricted range. *Antennaria arcuata* has been found in Idaho (one site in Blaine County near Carey) and Nevada (two sites in Elko County). Twenty sites are known from Wyoming, all in Fremont County. Most known locations are east and southeast of Atlantic City, while two occurrences are in the Granite Mountains northwest of Jeffrey City. Two populations are found on public land southwest of South Pass City. One population is found along Fish Creek approximately 1 mile west of Highway 28; the other is located about 1.5 miles east of Highway 28 on Pine Creek. Populations of meadow pussytoes at these sites are small compared to those near Atlantic City and in the Granite Mountains. A population adjacent to Long Slough, south-southeast of Atlantic City, may extend onto the Green River Resource Area.

Meadow pussytoes is typically found in wet meadows surrounded by sagebrush grassland. The plants occur on the drier margins of "hummocky" meadows. On more level sites with bare soil, the plants occasionally form vegetative mats. Potential habitat in the area of Atlantic City and South Pass City has been adequately inventoried, and additional survey is not a high priority.

Populations of meadow pussytoes range in size from several hundred to several thousand plants. It is unknown whether the species is increasing, declining, or remaining stable.

2. William's Rockcress (*Arabis williamsii*)

William's rockcress is a Category 3C Candidate under review for Federal listing as Threatened or Endangered. The Nature Conservancy ranks this plant as G3S3, vulnerable to extinction globally and vulnerable to extirpation statewide. William's rockcress is endemic to Wyoming, and is known from 26 different locations. Populations are found in the southeast Absaroka Mountains, the north and south ends of the Wind River Range, and the east flank of the Wyoming Range west of Big Piney.

William's rockcress occurs on public land just north of Wyoming Highway 28 in the vicinity of Willow and West Willow Creek. The site just west of West Willow Creek is the type locality for the species. Habitat consists of coarse, gravelly to rocky soil; often on relatively bare ground including rodent mounds, near rocks, and other somewhat disturbed sites associated with sagebrush grassland. Some unsurveyed potential habitat remains in the southern Wind River Range, but most suitable habitat has been surveyed. Additional populations may be discovered along the east side of the Wyoming Range and the west flank of the Wind River Range.

3. Mystery Wormwood (*Artemisia biennis* var. *diffusa*)

Mystery wormwood is a Category 2 Candidate under review for Federal listing as Threatened or Endangered. The Nature Conservancy ranks this plant variety as G5T1Q/S1. Although this species is secure globally, this particular subspecies, or variety, is extremely rare and vulnerable to extinction. Taxonomically, there is still a question regarding its validity as a variety. Very little is known about this species.

The mystery wormwood was discovered growing in a seasonal alkali playa northeast of Rock Springs. It is endemic to the Point of Rocks, Wyoming, area. This population was last observed in 1980. A subsequent search in 1984 could not relocate these plants.

4. Precocious Milkvetch (*Astragalus proimanthus*)

Precocious milkvetch is a Category 2 Candidate under review for Federal listing as Threatened or Endangered. The Nature Conservancy ranks this plant as G1S1, extremely vulnerable to extinction globally and extremely vulnerable to extirpation statewide. This legume is known only from four locations in the vicinity of McKinnon, in extreme southwestern Sweetwater County, Wyoming. *Astragalus proimanthus* is found in cushion plant communities in sagebrush grasslands on rocky clay (possibly calcareous) soils. Most of the known habitat for precocious milkvetch is on public lands.

A field survey conducted for the BLM by the Wyoming Natural Diversity Database in 1989 established permanent transects in four locations for population monitoring (with the recommendation that they be read every three years). Estimates of population size at that time ranged between 1,000 to 10,000 plants. Due to its very restricted geographic range, the precocious milkvetch is extremely vulnerable to extinction. The entire species occurs within an area of less than 10 square miles.

Roads, off-road vehicles, oil and gas exploration and development, range projects, and garbage dumps are threats to the precocious milkvetch. Several vehicle trails and two dumps (one recently reclaimed) are currently located near populations. The status survey results indicated that no surface development should be allowed in the population areas due to the extreme vulnerability of the species. However, no data are available on population trends.

Although no trend data are currently available, the populations do not appear very vigorous, especially the population around the reclaimed McKinnon dump. During the summer of 1993, BLM personnel noticed significant surface disturbances of a portion of the habitat due to motorized vehicles and livestock trailing. In 1994, the population suffered a loss of 12 percent. A Habitat Management Plan is currently being prepared by the BLM to provide management guidelines for the protection of this species. The proposed candidate plant ACEC would provide protective management designation for this species.

5. Ownbey's Thistle (*Cirsium ownbeyi*)

Ownbey's thistle is a Category 2 Candidate under review for Federal listing as Threatened or Endangered. The Nature Conservancy ranks this species as G3S1, vulnerable to extinction globally and extremely vulnerable to extirpation statewide. This species is endemic to northwest Colorado, northeast Utah, and southwest Wyoming. It is known only from two sites in Wyoming.

In the Green River Resource Area, Ownbey's thistle has been found on the east side of the Flaming Gorge National Recreation Area, and along the Currant Creek drainage. Its habitat consists of steep, shaley soils associated with desert shrub communities.

Due to its extreme rarity, surface disturbance could significantly impact the species. The plant's spiny nature makes it unpalatable as forage for livestock. However, herbicide spraying could negatively impact the species. Construction activity associated with oil and gas, range projects, and other project developments potentially threatens the plant's habitat. A proposed general floristic inventory of this area in 1995-96 may reveal more occurrences of this species.

6. Wyoming Tansy Mustard (*Descurainia torulosa*)

Wyoming tansy mustard is a Category 2 Candidate under review for Federal listing as Threatened or Endangered. The Nature Conservancy ranks this plant as G1S1, extremely vulnerable to extinction globally and extremely vulnerable to extirpation statewide. This species is known from eight sites: six in the Absaroka Mountains (Park and Fremont counties); and one population at Pine Butte and one at Lion Bluffs (Sweetwater County), Wyoming. The Sweetwater County populations are located on both BLM and private lands in the Resource Area.

The Sweetwater County populations are interesting in that they are widely disjunct from the main populations in the mountains of northwest Wyoming. The high, north-facing sandstone bluffs at Pine Butte and Lion Bluffs rise from the surrounding dry sagebrush grasslands and provide the cool, moist microsites the species requires. The plants grow close to the base of the bluffs in sandy soil. It is surmised that the species is a relic of a cooler climatic period, and has retreated to the only available habitat in the area which suits its needs.

Field survey by the Wyoming Natural Diversity Database in 1991 revealed the population at Lion Bluffs, at the northeast end of Quaking Aspen Mountain. The study encompassed all appropriate areas displaying potential habitat in the study area. However, unsurveyed potential habitat may exist on the east slope of the Wind River Range.

The populations are all very small and do not appear to be thriving. Its limited range, small populations and lack of vigor make the Wyoming tansy mustard very vulnerable to extinction. At Pine Butte, surveys conducted in 1987 and 1991 observed less than 200 individuals in the habitat of under 10 acres. The population at the

Pine Butte site is relatively inaccessible. Population information is not available for the Lion Bluffs site. This population of the Wyoming tansy mustard is vulnerable because of its location on Quaking Aspen Mountain. The single identified immediate threat to this population is mineral location.

Initial taxonomic studies of the species at the Sweetwater County locations led to some uncertainty whether these plants were members of *Descurainia torulosa* or a similar species. Based on the limited material available, the conclusion was that these populations are indeed members of *D. torulosa*. Additional specimens from throughout the range of the species, as well as further taxonomic studies, may clarify this taxonomic question. The Wyoming Natural Diversity Database suggested that until the taxonomy of the species is more conclusively determined, the species should be assigned a Category 2 status. This was done under the September 30, 1993 Notice of Review.

Due to its extremely specific habitat requirements and small populations, it is unlikely that this species will be found to be common under current climatic conditions. It remains very vulnerable to extinction. The proposed candidate plant ACEC will provide protective management designation for this species.

7. Large-Fruited Bladderpod (*Lesquerella macrocarpa*)

The large-fruited bladderpod is a Category 2 Candidate under review for Federal listing as Threatened or Endangered. The Nature Conservancy ranks this plant as G2S2, very vulnerable to extinction globally and very vulnerable to extirpation statewide. Prior to 1992, the large-fruited bladderpod was thought to be endemic to the northern Great Divide Basin in Sweetwater and Fremont counties, Wyoming. However, during a vegetative survey, it was located near the town of Opal in Lincoln County, Wyoming (Culwell 1992).

Most of the known large-fruited bladderpod populations occur on public land northeast of Steamboat Mountain on Bush Rim, near Continental Peak, and in the Oregon Buttes area. The species has been collected from sparsely vegetated clay flats, benches, slopes, and hills. It commonly grows in association with Gardner's saltbush between 7,200 and 7,700 feet in elevation.

Sites surveyed in 1981 ranged in size from 80 to over 1,000 acres, with estimates ranging from several hundred to tens of thousands of plants. Large-fruited bladderpod population sizes fluctuate from year to year, apparently in response to moisture availability. During dry years, when populations are small, the species is much more vulnerable to adverse impacts. Its overall limited range and small population sizes in dry years qualify *Lesquerella macrocarpa* as a Candidate species. No threats are known at this time. A monitoring program was established in 1988 by the Wyoming Natural Diversity Database (Marriott 1988), but was not considered a good baseline because of the effect of drought conditions on the population size. A status survey was conducted for this species in cooperation with the Rawlins District BLM in the summer of 1994.

8. Contracted Indian Ricegrass (*Oryzopsis contracta*)

The contracted Indian ricegrass is a Category 2 Candidate species under review for Federal listing as Threatened or Endangered. The Nature Conservancy ranks this species as G2S2, either rare, or local in its range, or found locally in a restricted area. This species is a regional endemic, found in southern Wyoming and northern Colorado.

The contracted Indian ricegrass is generally found in basin areas on dry, shallow, or sandy soils. Within the Resource Area, the contracted Indian ricegrass has been found southeast of Steamboat Mountain, Stagecoach Draw, and the Oregon Buttes area.

Prior to 1993, this species was known from only 12 locations in Wyoming and Colorado and was ranked G2, indicating it was imperiled throughout its range. Field surveys throughout the Rock Springs District in 1993 and 1994 resulted in discoveries of numerous new locations of the species. A status survey for the species in 1994 by the Wyoming Natural Diversity Database showed the species is widespread in central and western Wyoming. Contracted Indian ricegrass is palatable to livestock and could potentially be threatened on a local level by overgrazing or large-scale surface disturbances. However, due to its wide range, numerous occurrences, and low threats, the U.S. Fish and Wildlife Service is considering downgrading the contracted Indian ricegrass to Category 3C.

9. Swallen's Mountain Ricegrass (*Oryzopsis swallenii*)

This species is a Category 3C Candidate under review for Federal listing as Threatened or Endangered. The Nature Conservancy ranks this plant as G5S1, secure globally, but extremely vulnerable to extirpation statewide. The single known occurrence in the Green River Resource Area is in Bird Canyon, about one mile east of the Green River.

Swallen's mountain ricegrass is found on rocky slopes and rocky knobs in sandy areas, especially on calcareous soils. Its elevational range is between 6,600 and 7,100 feet.

No surveys are known to have been conducted for this species in Wyoming.

10. Stemless Beardtongue (*Penstemon acaulis*)

Stemless beardtongue is a Category 2 Candidate under review for Federal listing as Threatened or Endangered. The Nature Conservancy ranks this plant as G3S1, vulnerable to extinction globally and extremely vulnerable to extirpation statewide. Stemless beardtongue is endemic to Sweetwater County, Wyoming; northeast Utah (Daggett County); and northwest Colorado (Moffat County). Two varieties are recognized: var. *acaulis* is found in all three states, while var. *yampaensis*, with broader leaves, occurs in the eastern portion of the species range in Colorado and Utah. The stemless beardtongue is known from 5 sites in Wyoming, all in extreme southwest Sweetwater County near McKinnon, Wyoming.

Habitat consists of semi-barren substrates in pinyon-juniper and sagebrush-grassland communities. In Wyoming, stemless beardtongue occurs on rocky, sparsely-vegetated sites with sagebrush and cushion plants. Its elevational range is 5,900 to 7,200 feet. No records are available concerning potential habitat and areas surveyed in the past. Similar habitat (coarse outwash) occurs at other sites in the area.

Penstemon acaulis appears to be restricted in its overall range, and is infrequent to common where it occurs. No quantitative data on population size or trend are available. Management plans include a future status survey for this species and monitoring program.

11. Tufted Twinpod (*Physaria condensata*)

The tufted twinpod is a Category 3C Candidate under review for Federal listing as Threatened or Endangered. The Nature Conservancy ranks this plant as G2S2, very vulnerable to extinction globally and very vulnerable to extirpation statewide. The tufted twinpod is endemic to southwest Wyoming, currently with 18 known occurrences in Wyoming. Its single known location in the planning area is east of LaBarge.

The tufted twinpod's habitat consists of sparsely-vegetated shale slopes and ridges. It has been found growing between 6,000 and 7,600 feet in elevation.

This species was originally studied for the BLM in 1981, but the study concentrated on taxonomic differences between this species and others in the area. Survey routes of collections were not documented, and the entire range of the species was not mapped. Complete information concerning distribution, and population sizes and trends is lacking. Due to the lack of immediate threats to the species, the U. S. Fish and Wildlife Service downgraded the twinpod to 3C status (Notice of Review 1993). Much of its potential habitat has not been surveyed to date, and it is likely that more of the species will be found during the general floristic inventories of the Rock Springs District.

12. Green River Greenthread (*Thelesperma caespitosum*)

The Green River greenthread is a Category 2 Candidate under review for Federal listing as Threatened or Endangered. The Nature Conservancy has ranked this plant G1S1, extremely vulnerable to extinction globally and extremely vulnerable to extirpation statewide. The species is known from two locations in Wyoming and one historical occurrence in northeastern Utah. Both Wyoming locations occur within the Resource Area on escarpments above the Green River about 2 miles southeast of the town of Green River.

The Green River greenthread was discovered in 1988 growing on a ridge of barren white shale derived from the Green River Formation. This population is located in the vicinity of a heavily used recreational area where individual plants have been dislodged by vehicular activity. A second population was discovered in 1994 during a status survey by the Wyoming Natural Diversity Database. The newly found occurrence has not been directly impacted, but exists in an area of past drilling activity.

Due to its extreme rarity, impacts from seismic activity, mineral development, motor vehicle use, or any other surface disturbing activity could have serious impacts on this species. A monitoring plan was established in 1994 and should be monitored yearly to provide trend data. A habitat management plan which would prescribe protective actions is planned for this species.

13. Uinta Greenthread (*Thelesperma pubescens*)

Uinta greenthread is a Category 2 Candidate under review for Federal listing as Threatened or Endangered. The Nature Conservancy ranks this plant as G1S1, extremely vulnerable to extinction globally and extremely vulnerable to extirpation statewide.

Thelesperma pubescens is restricted to less than 100 square miles in southwestern Sweetwater and southeastern Uinta counties, Wyoming, and one location in Summit County, Utah. In the Resource Area, it occurs on BLM-managed public land off the north flank of the Uinta Mountains on Cedar, Sage Creek and Hickey Mountains. These mountains are isolated plateaus capped with cobbly, coarse soils formed from Bishop conglomerate. The Uinta greenthread grows along the rims of these mountaintops. All suitable potential habitat in the area of known populations has been surveyed for Uinta greenthread.

This species is generally abundant where it occurs; populations range in size from thousands to tens of thousands of individuals. Due to its overall restricted range, disturbance could significantly impact the species. A status survey was conducted for this species in 1988 by the Wyoming Natural Diversity Database (Marriott 1988a), primarily in response to active oil and gas field development in the area. Motorized vehicle activity on the habitat (tire tracks) was identified as an actual threat to the species during the summer of 1993. A habitat management plan is planned for this species. The proposed Candidate plant ACEC will provide protective management designation for this species.

14. Cedar Rim Easter Daisy (*Townsendia microcephala*)

The Cedar Rim Easter daisy, is a Category 2 Candidate under review for listing as Threatened or Endangered. The Nature Conservancy ranks this plant as G1S1, extremely vulnerable to extinction globally and extremely vulnerable to extirpation statewide. This species was recently discovered and is found only in southwest Sweetwater County, Wyoming. It grows in nearly identical habitat to that of *Thelesperma pubescens*.

The population of the Cedar Rim Easter daisy grows on a rocky slope at the summit of Cedar Mountain within one mile of a population of *Thelesperma pubescens*. Very little is known about this species. However, the Wyoming Natural Diversity Database performed a status survey of this species in the summer of 1994. A monitoring program was established and it is recommended that monitoring be done yearly.

Due to the extreme rarity and apparently very small population size, surface disturbance could significantly impact this species to the point of extinction.

III. INFORMATION SOURCES

The previous discussions on habitat use, activities, and habitat requirements for the various plant and animal species of concern are from the Green River Management Situation Analysis (MSA). The MSA provides the background information required to formulate decisions found in the RMP document. A variety of sources were solicited for background information used in the MSA.

Some of the information concerning wildlife populations, distribution, and history was furnished by Truman Julian, James June, Elaine Raper, and Don Roy (former WGFD biologists); and Dave Lockman, biologist, Wyoming Game and Fish Department. Additional data was provided by Dick Randall, Humane Society of the United States; Merle Bennett, Dick Gilbert, [illegible] Rodriguez, Art Anderson and Steve Martin, U.S. Fish and Wildlife Service; Tom Campbell and Dr. Tim Clark, Research Biologists from Biota Research, Jackson, Wyoming; the BLM resource area biologist, and from numerous BLM study and inventory contracts. Walt Fertig and Hollis Marriott of the Wyoming Natural Diversity Database, The Nature Conservancy, provided status survey reports and valuable information on the Candidate plant species found in the Resource Area. In addition, information about recently discovered species was summarized from U.S. Fish and Wildlife Service status survey reports, botanical journal articles authored by Dr. Robert Dorn, and survey results from Western Energy and Engineering Inc. (Culwell 1992). The GIS data associated with this analysis reflect both historic and recent information.

IV. DIRECT AND INDIRECT IMPACTS

Colorado River Water Depletions

There are four species of fish in the upper Colorado River system that are federally listed as endangered. They are the Colorado squawfish (*Ptychocheilus lucius*), the humpback chub (*Gila cypha*), the bonytail chub (*Gila elegans*) and the razorback sucker (*Xyrauchen texanus*). Though they currently exist only downstream from this Resource Area, water from the Upper Green River basin affects the downstream habitat for these fish. Under the *Recovery and Implementation Program for Endangered Fish Species in the Upper Colorado River Basin* (RIP), any water depletions from tributary waters within the Colorado River drainage are considered as jeopardizing the continued existence of these fish. Tributary water is defined as water that contributes to instream flow habitat. Depletion is defined as water which would contribute to the river flow if not intercepted and removed from the system.

The RIP was developed as part of a cooperative effort between the states of Colorado, Utah, and Wyoming; the Bureau of Reclamation (BOR); U.S. Fish and Wildlife Service (USFWS); private water development interests; and various environmental groups. In addition, a cooperative agreement was signed by the governors of the states of Colorado, Utah, and Wyoming; the Secretary of the Interior; and the Administrator of the Western Area Power Administration, Department of Energy, to further implement the RIP.

Projects

For the purposes of this document the term "project" will mean any activity by or permitted by BLM that normally requires an environmental analysis in order to be implemented and which depletes or contributes water to the surface flow of the Green River or its tributaries. In figuring average annual depletion a project could be as small as one gas well drilled in one year or it could be as large as 150 gas wells drilled in 10 years. For this document only small depletions of under 125 acre-feet/year average annual depletion per project are considered. Larger depletion events caused by things such as new trona ponds or expanded trona mining operations, new coal operations, new power plant operations, irrigation projects, large reservoirs, etc., will be covered by separate environmental analysis and separate consultation under the Endangered Species Act. All coalbed methane projects would be handled in separate analysis, and estimated numbers of wells to be drilled are not included in the tables in this document. The Green River RMP, with an analysis period of 20 years, contains an estimate of small depletions. The average annual depletion is calculated for both BLM and other project proponents (Table 4). Also calculated is the amount depleted by projects developed prior to 1988 (Table 5) and the amount of water contribution provided by past projects that are still contributing water to the system today (Table 6).

New Depletions

Throughout the Upper Green River Basin, water depletions could occur from, but are not limited to, such activities as oil and gas drilling operations, solid mineral extraction, power generation, irrigation, culinary use, hydrostatic testing of pipelines, evaporation from water impoundments, water wells, etc. Past environmental analyses and biological assessments have documented impacts from such uses. Some of these actions are internal agency actions and others are BLM permitted actions by outside organizations or individuals. Whether or not any specific action would actually result in a depletion from tributary water to the Green River needs to be determined case by case and site specifically. In estimating the total water depletion from small depleting events (those taking less than 125 acre-feet/year) over the next 20 years in the Green River Resource Area, some assumptions are made:

1) Only half of the reservoirs, water pits, and catchments installed under the range or wildlife programs would be assumed to affect the flow in the Green River.

2) Reservoirs, water pits, and catchments, etc. installed under the range or wildlife programs that cause a depletion would be assumed to average 0.5 acre-feet/year.

3) Reservoirs, water pits, and catchments, etc. installed under the range or wildlife programs would be assumed to be installed all in year 1 of the plan.

4) Water wells would cause a depletion if located within the floodplain or other recharge zones as delineated by the District geologist and hydrologist.

5) Oil and gas well drilling operations would be assumed to cause, on average for an 8,000 foot well depth, a one time depletion of 1 acre-foot per well. Actual numbers will be calculated as wells are drilled based on 40 gallons of water per foot of depth.

6) Water used in hydrostatic testing of pipelines would be assumed to be returned to the water system, thus causing no depletion.

7) Spring developments would be assumed to deplete 0.5 acre-feet per year each, all installed year 1 of the plan, and only half of the springs affect the flow of the Green River.

8) Larger depletion events (those over 125 acre-feet/year) caused by things such as new trona ponds or expanded trona mining operations, new coal operations, new power plant operations, irrigation projects, large reservoirs, etc., would be assumed to be covered by separate environmental analyses and biological assessments. All coalbed methane projects would be handled in separate analyses, and estimated numbers of wells to be drilled are not included in the totals in Table 1.

Historic Depletions

Historic depletions are those depletions occurring prior to January 22, 1988 (the date the RIP Cooperative Agreement was signed) and which continue to deplete today. Reservoirs are an example of such depletions provided they stop water from entering a tributary that would add to the surface flow of the Green River. Water wells drilled prior to 1988 were randomly checked for depletion and found to all be in locations that do not affect the aquifer providing recharge to the Green River system or its tributaries. Spring developments prior to 1988 were sampled and were not found to be in areas which were contributing to perennial streams. Also, the majority of the spring developments are "closed systems" which basically means they have float valves which do not allow continuous flow away from the spring site (i.e., when the valve is shut, no water is taken from the spring).

Water Contributions to the Green River System

There are several abandoned or converted exploration wells (from Oil and Gas, Trona, Coal, DOE, etc.) on BLM-administered lands that are maintained as flowing wells and that provide year around flowing water of good quality, supplementing the flow of perennial streams within the Green River system. The estimated total flow from these wells is 222.6 acre-feet per year into perennial streams. This water is from deep aquifers that do not normally contribute to the surface flow of the Green River. There are perhaps twice this number of flowing wells which do not provide water on the surface to perennial streams but quite possibly make it underground to support the perennial flow. It is not possible to ascertain the total effect from these water sources and this flow is not figured into any calculations for water contribution. These flowing wells (222.6 acre-feet per year) will more than offset the expected average annual depletions (73.05 acre-feet per year) for projects which create new, small depletions during the RMP analysis period under the Proposed Alternative (Table 1). Should this average annual small depletion total be adjusted upward in future years because of unforeseen increased activity, depletions will still be offset up to the amount of the contributions (222.6 acre-feet/year) calculated above provided those contributions continue; if that figure should be exceeded, further consultation would be initiated. In addition, resource enhancement projects within the watershed of the Green River basin logically would improve water flows and quality but unless there is a "point source" that can be measured independent of climatic and other factors this cannot be figured into the calculations for water contribution.

Future Considerations

In order to keep track of the many possible changes that may occur during the life of the Resource Management Plan, the Green River Resource Area will provide the USFWS documentation of water depletions or contributions for projects as they are implemented. This will be done to insure that average annual water depletions within the GRRA do not exceed the amount of average annual water contributions (currently at 222.6 acre-feet/year).

Historic depletions (from those projects initiated prior to 1988 and continuing today) will change only as these projects cease to exist. As this occurs, the historic depletion total will continue to decline. All new projects, including repair of washed out reservoirs for example, will be treated as new projects and new depletions. An annual coordination meeting between USFWS and BLM should be held to review depletion issues for the Resource Area.

Animal Damage Control Activities

Refer to the July 28, 1992 biological opinion rendered to Mr. Robert Melland, Animal and Plant Health Inspection Service, U.S. Department of Agriculture, Washington, D.C., in regard to animal damage control programs on threatened and endangered species.

Leasable and Salable Minerals

Applications and issuance of minerals activities require that an Endangered Species Clearance review be completed and a "No Effect" or "May Effect" decision be rendered. Consultation will be initiated on actions in which a "May Effect" decision has been rendered and "No Effect" alternatives are either unavailable or unacceptable.

All Other Land Use Activities

All land use activities regardless of origin are required to comply with Section 7 (Federal Agency Actions and Consultations) of the Endangered Species Act. Action and site specific Threatened or Endangered Species clearances are and will be performed inhouse or under contract to satisfy provisions of the Endangered Species Act.

Referencing Volume 2, Chapter 4 - Environmental Consequences would be helpful to the Service in developing the Biological Opinion.

V. CUMULATIVE IMPACTS

The Resource Management Plan emphasizes maintenance and enhancement of threatened and endangered and special status species and biodiversity. The impacts to these species and critical habitats will be addressed as each activity plan is prepared or revised. The following discussion relates only to those activities within the plan which could cumulatively impact Threatened, Endangered, or Special Status plants and wildlife.

Fire Management

Fire suppression activities and associated fire camps could adversely affect Special Status plants through application of retardants or fire line construction with heavy equipment. The discussion in Volume 1, page 125 indicates that suppression activities will be designed to protect candidate plants.

Lands and Realty Management

Cumulative adverse impacts could occur through issuance of rights-of-ways, Special Land Use Permits (SLUP), and other authorized land use actions within or adjacent to threatened and endangered or special status plant areas. Spiderweb-like development of roads, pipelines, and well sites in East LaBarge could adversely affect recolonization of wooded riparian habitats by bald eagle or river cliff sites by peregrine falcon. Roadway dust or flaring emissions from gas wells may adversely alter special status plant communities. The cumulative effect of roadways, pipelines, and drill pad construction in prairie dog colonies may reduce the available habitat for black-footed ferrets and fragment these special features.

Many relic plant communities occur in high elevation sites or on isolated geologic features. These sites are also preferred for communication sites. Cumulative impacts to potential communities of special status plants could occur with construction and maintenance of communication facilities in some locations.

Livestock Grazing Management

Volume 1, page 136 proposes as Management Actions, that authorized grazing use would not exceed the recognized active grazing preference of 318,647 AUMS. With the past 5-year average of 180,000 AUMs of grazing use, we are seeing some wetlands and riparian habitats gradually improve while others are in static condition and yet others continue to deteriorate. Many of the listed and candidate wildlife species are associated with wetlands and riparian habitats. Should the full grazing preference of livestock be activated, we could anticipate these special habitats to deteriorate and become unsuitable for many listed and candidate plant and animal species. Grazing levels based upon monitoring plant growth and forage use may allow more active AUMs of grazing than presently occur, but it requires moving livestock much more often to prevent overuse.

Development of supplemental wildlife waters in lightly grazed portions of some pastures could cumulatively impact special status plant species and alter plant communities. Placement of salt stations on or near riparian areas and in potential special status plant communities would have adverse impacts to some species listed in Table 1.

Minerals Management

Leasable Minerals

As previously discussed, oil and gas field development could adversely impact threatened and endangered and candidate species by the cumulative effect of human disturbance (noise, dust, vehicles, human presence, heavy equipment dirtwork), habitat fragmentation (roads, wells, compressors, etc.), and potential for accidental hazard waste discharge. The present 160-acre spacing is not so adverse as development on a tighter spacing, such as 80 acres, where considerable fragmentation and human intrusion would occur.

Leasable mineral development is often associated with open water impoundments with water quality of a toxic nature. As more large impoundments are developed, the likelihood of threatened and endangered species loss increases. Several of the species in Table 1 of this Biological Assessment are associated with water and wetland habitats and the cumulative effects of hazardous impoundment development on threatened and endangered species could increase if restrictive measures are not implemented.

Salable Minerals

A single flagstone sale may not have adverse impacts to threatened and endangered and special status plants and animals, but the cumulative impact of several sales in the same area over a period of time may displace raptor nesting or destroy plants. Dispersed collecting over a wide area during appropriate seasons should have fewer impacts.

Recreation Resource Management

There may be some cumulative impacts to riparian habitat and associated threatened and endangered species from camping activities and ORV use on and along riparian habitats and on major waterways.

VI. COORDINATION WHICH WILL REDUCE ADVERSE THREATENED AND ENDANGERED IMPACTS

Much of the resource data for the planning area has been entered into the Geographic Information System. This data has been used to overlay conflicting resource information in areas of development and or protection, thereby coordinating resource management. The raptor database has about 1,600 nests classed as active during the time of inventory and located in a variety of habitats. This represents about one-third of the total nests identified during various raptor surveys in the resource area. The BLM is in the process of summarizing data for GIS input for habitats for other threatened and endangered species. These data will soon be available for future conflict analysis.

Some additional measures of mitigation discussed in the RMP to offset potential adverse impacts from various activities are discussed.

Active raptor nesting habitat (cliffs, bluffs, roosts, outcrops, and pinnacles) may be considered No Surface Occupancy areas subject to raptor activity that year and during a season which could occur between February 1 to July 15 (depending on species and fledgling hatching dates). Nesting raptors would be protected by restricting activities within a buffer zone of .6 to .8 miles radius of active raptor nesting sites or occupied habitat (reference Table 7, Seasonal Restrictions for All Surface Disturbance Activities of the DEIS). Active or historic raptor nesting sites would be protected and managed to allow for continued nesting activities.

Any coal leasing on federal coal lands would be subject to the following conditions:

1. Inventory followed by consultation with the U.S. Fish and Wildlife Service.
2. No surface mining or surface operations in areas having an active or viable nest or in the associated buffer zone (viable as determined by the USFWS).
3. If exceptions are granted, no surface-disturbing activities will be permitted in such areas during breeding and nesting seasons.
4. Should new nests become established on or within one mile of the lease area during the course of mining, the BLM will consult with the USFWS to determine mitigative measures that may be needed to protect nesting birds.

The Tri-State Monument ACEC is identified for the protection of watershed values and sensitive status fish species. The area consists of the Currant Creek, Sage Creek, and Red Creek watersheds. Watershed features such as sedimentation, water quality, and stability are currently threatening the existence of Colorado River cutthroat trout through habitat deterioration and seriously affects the fisheries potential of the Green River.

Fish spawning areas would also be protected by preventing or restricting stream disturbance activities during spawning periods. Disturbance activities in game fish spawning areas (spring spawning or fall spawning) would be determined on case-by-case basis.

About 463,000 acres of coal potential lands would be subject to continued field investigations, studies, and evaluations to determine if certain methods of coal mining can occur without having a significant long-term impact on wildlife, and especially on threatened and endangered plant and animal species and their essential habitats. Such investigations, studies, and evaluations may be conducted on an as needed or case-by-case basis in reviewing individual coal leasing or development proposals (e.g., mine plans) or, if opportunities or needs arise, area-wide studies may be conducted. These studies would include keeping resource base data current (e.g., where existing raptor nests become abandoned or where new raptor nests become established), analysis of effects to wildlife and threatened and endangered species habitats and populations, and the cumulative effects of mining operations and other activities in the area. Consultation with other agencies (e.g., USFWS, WGFD, etc.), special interest groups, and with industry would occur as needed or required.

Inventories and clearances are required for authorized BLM activities in areas known or suspected to be essential habitat for animals and plants classified as a threatened, endangered, or special status species. These studies will be done in accordance with BLM and U.S. Fish and Wildlife Service guidelines to verify the presence or absence of these species. In the event that a listed species is identified, the lessee/permittee will be required to modify operational plans to include the protection requirements of the species and its habitat (e.g., seasonal use restrictions, occupancy limitations, facility design modifications).

Habitat for threatened, endangered, and sensitive plant and animal species would be provided, maintained, or improved through vegetative manipulation, mitigation measures, or other management actions including habitat protection, acquisition, and easements.

Site specific activity planning (allotment management plans, habitat management plans, etc.) and site specific analysis of individual actions require further site specific analysis of effects to all resources including threatened and endangered and candidate species. Inventories will be conducted and the data bases kept current.

Off-road vehicle travel on most public land acres would be limited to existing roads and trails to reduce adverse environmental damage and reduce conflicts with sensitive and/or threatened and endangered species. Some roads and trails would be closed and reclaimed as a result of transportation planning. Transportation planning would include proper road location, construction, reconstruction, design, and reclamation.

Known locations of candidate plant species communities (44 locations and 3,110 acres) are to be protected and closed to: 1) surface disturbing activities that could adversely affect the plants or their habitat; 2) the location of new mining claims (withdrawals will be pursued); 3) mineral material sales; 4) off-road vehicle travel; 5) geophysical exploration activities; and 6) the use of explosives and blasting.

In addition, the area (about 440 acres) occupied by four of the plants described above (***Arabis pusilla, Astraglus promanthus, Descurania torulosa,*** and ***Thelesperma pubescens***) has been designated as an Area of Environmental Concern in the Preferred Alternative.

Searches would be conducted to identify new plant locations and on potential habitat areas prior to projects. As new populations are identified, they would be added to the ACEC. Up to an additional 30,900 acres of potential habitat could be added to the ACEC if it is determined that any of the four candidate plants are present. Should a plant be de-listed, management of that plant species under ACEC prescriptions would be discontinued. The ACEC acreage could thus increase or decrease depending upon the results of the searches or delisting. If plants are found on identified potential habitat areas, the plant site and its associated habitat will be avoided and not occupied. If plants are not found, occupancy will be allowed with proper mitigation.

It may be desirable to acquire approximately 1,900 acres of habitat near Pine Butte to enhance management of *Descurania torulosa*.

Please refer to the Draft Environmental Impact Statement of the Green River RMP for additional mitigation and or protective measures.

VII. MAY EFFECT/NO EFFECT DETERMINATION

The Green River RMP in and of itself is an overall plan for management direction of various commodity and natural resource programs for the next 20 years. BLM policy of "no net loss" of wetlands and direction to "achieve 75 percent of riparian areas in proper functioning condition" should improve the status of many of the species previously discussed. Numerous other proposals within activity prescriptions demonstrate progressive attitudes toward biodiversity and improved responsible environmental management of public lands.

It has been ruled that any water depletion to the Colorado River or its tributaries constitutes a "may effect" situation to the endangered fish species of this system. Water will be removed from the Green River or its tributaries during the implementation of the GRRA RMP. However, the contribution of good quality water from artesian wells, currently in the amount of 222.6 acre-feet/year mitigates the effect of the anticipated water depletions. This contributed water enhances instream flows to the river system. If these wells were not maintained or were shut down, that water would not be available to the system.

In addition, the relationship between the operation of Flaming Gorge Dam and minor water depletions above the dam should be reevaluated. The dam, situated just south of the Wyoming/Utah border, backs a reservoir that has a volume of 3,788,700 acre-feet and a surface acreage of 42,000 acres. All of the critical habitat for the Colorado River endangered fish species is located downstream of this dam. The operation of the dam is entirely responsible for the instream flow regime provided by the Wyoming portion of the Green River through this critical habitat. It is very unlikely that the average annual depletion calculated for small depletions during the next 20 years (73.05 acre-feet) could ever affect the operation of a 3.7 million acre-foot reservoir even if it were not offset by the water contributions mentioned in section IV above. The effect would be negligible. Evaporation alone on this reservoir would amount to more than 168,000 acre-feet annually (4 x 42,000). Also, unless water withdrawal upstream of the dam would affect the operation of the dam, there would be no effect on the instream flows through the critical habitat areas.

Analysis of the proposed management prescriptions in the Preferred Alternative indicate that the Green River Resource Area RMP is not likely to adversely affect the status of any previously discussed plant or wildlife species and constitutes a "No Effect" determination.

APPENDIX 10-1

TABLE 1
SPECIES LIST

USFWS Category	Common Name	Scientific Name
Listed Species	Black-footed ferret	*Mustela nigripes*
	Bald eagle	*Haliaeetus leucocephalus*
	Peregrine falcon	*Falco peregrinus*
	Whooping crane	*Grus americana*
	Bonytail chub	*Gila robusta elegans*
	Colorado squawfish	*Ptychocheilus lucius*
	Humpback chub	*Gila cypha*
	Razorback sucker	*Xyrauchen texanus*
Proposed Species	Small rockcress	*Arabis pusilla*
Candidate Species	Lynx	*Felis lynx*
	North American wolverine	*Gulo gulo luscus*
	Pygmy rabbit	*Sylvilagus idahoensis*
	Black tern	*Chlidonias niger*
	Ferruginous hawk	*Buteo regalis*
	Loggerhead shrike	*Lanius ludovicianus*
	Long-billed curlew	*Numenius americanus*
	Mountain plover	*Chadrius montanus*
	Northern goshawk	*Accipiter gentilis*
	Western snowy plover	*Charadrius alexandrinus*
	White-faced ibis	*Plegadis chihi*
	Colorado River cutthroat trout	*Oncorhynchus clarki pleuriticus*
	Flannelmouth sucker	*Catostomus latipinnis*
	Leatherside chub	*Gila copei*
	Roundtail chub	*Gila robusta robusta*
	Large fruited bladderpod	*Lesquerella macrocarpa*
	Meadow pussytoes	*Antennaria arcuata*
	Precocious milkvetch	*Astragalus proimanthus*
	Stemless beardtongue	*Penstemon acaulis*
	Williams rockcress	*Arabis williamsii*
	Wyoming tansymustard	*Descurainia torulosa*
	Pubescent greenthread	*Thelesperma pubescens*
	Green River greenthread	*Thelesperma caespitosum*

APPENDIX 10-1

TABLE 2
FERRET SIGHTINGS

Date	Location	Number	Comments
May 1968	2 miles south of Green River, 2 miles off river	1 adult	Probable
1969	T. 18 N., R. 93 W., Sec. 21	1 adult(?)	Positive
August 1972	T. 14 N., R. 98 W., Secs. 35-36	1 adult(?)	Probable
August 1973	53 miles west of Rawlins, 6.2 miles south of Tipton Road	1 adult	Possible
September 1974	T. 18 N., R. 98 W., Sec. 30, 5 miles south of Bitter Creek	1 adult	Probable
May 1975	8 miles west and 2 miles south of Green River	1 adult(?)	Possible
October 1975	T. 21 N., R. 111 W., Sec. 21	1 adult(?)	Positive
1976	T. 22 N., R. 110 W., Sec. 22	1 adult(?)	Positive
Summer 1979	Sweetwater County, Superior Exit on I-80	1 adult(?)	Probable
May 1983	T. 23 N., R. 98 W., Sweetwater County	1 adult(?)	Confirmed
July 1983	Sweetwater County, Bar X Road near I-80	1 adult(?)	Probable
April 1984	T. 18 N., R. 107 W., Sec. 22, 1 mile west of Green River	1 adult	Probable
May 1984	Sweetwater County, near Green River	1 adult(?)	Probable
July 1992	T. 15 N., R. 96 W., Sec. 16, south of trail toward Sand Creek in Adobe Town	1 adult(?)	?

APPENDIX 10-1

TABLE 3
CANDIDATE PLANT SPECIES IN THE GREEN RIVER RESOURCE AREA

Plant Name		Classification	
Scientific	**Common**	**Federal**	**Conservancy***
Antennaria arcuata	meadow pussytoes	2	G2S2
Arabis pusilla	small rockcress	1	G1S1
Arabis williamsii	William's rockcress	3C	G3S3
Artemisia biennis var. diffusa	diffuse sagebrush	2	G5T1/S1
Astragalus proimanthus	precocious milkvetch	2	G1S1
Cirsium ownbeyi	Ownbey's thistle	2	G3S1
Descurainia torulosa	Wyoming tansy mustard	2	G1S1
Lesquerella macrocarpa	large fruited bladderpod	2	G2S2
Oryzopsis contracta	Contracted ricegrass	2	G2S2
Oryzopsis swallenii	Swallen's mountain ricegrass	3C	G5S1
Penstemon acaulis	stemless beardtongue	2	G2S1
Physaria condensata	Tufted twinpod	3C	G2S2
Thelesperma pubescens	Uinta greenthread	2	G1S1
Thelesperma caespitosum	Green River greenthread	2	G1S1
Townsendia microcephala	Cedar Mountain Easter daisy	2	G1S1

*Global Ranking
G1-extremely vulnerable to extinction globally
G2-very vulnerable to extinction globally
G3-vulnerable to extinction globally
G4-apparently secure globally
G5-secure globally

*Statewide Ranking
S1-extremely vulnerable to extirpation statewide
S2-very vulnerable to extirpation statewide
S3-vulnerable to extirpation statewide
S4-apparently secure statewide
S5-secure statewide

*Trinomial Ranking
T1-this subspecies or variety extremely rare and vulnerable to extinction
T2-this subspecies or variety rare, vulnerable to extinction
T3-this subspecies or variety rare, local or restricted in its range

NOTE: The ranking system used by the Nature Conservancy, Natural Diversity Data Base for plant sensitivity is on a global and a statewide basis. Sensitivity is determined by the vulnerability of the species to extinction globally or extirpation statewide, based on threats to the population.

Source: The Nature Conservancy 1990. Natural Diversity Data Base Ranking System. [Source: Federal Register, September 30, 1993, and the Wyoming Natural Diversity Database 1993. "Wyoming Plant Species of Special Concern".]

APPENDIX 10-1

TABLE 4
SUMMARY TABLE FOR NEW SMALL WATER DEPLETIONS WITHIN THE GREEN RIVER DRAINAGE

Activity	BLM-Initiated	Other Project Proponents
Reservoirs(#)	43	None
Water Wells(#)	7	Unknown
Spring Developments(#)	8	None
Oil & Gas Well Drilling(#)	None	1,206
Irrigation	None	None
Activity	**BLM Total Depletion (acre-feet)**	**Other Water Proponent Total Depletion**
Reservoirs	215	None
Water Wells	"but for" clause	Unknown
Springs	40	None
Oil & Gas Wells	None	None
Irrigation	None	None
TOTAL	**255**	**1,206**
AVERAGE ANNUAL DEPLETION	**12.75**	**60.30**

TABLE 5
HISTORIC DEPLETIONS

Activity	BLM-Initiated Activity	Other Project Proponents
Reservoirs (#)	497	None
Water Wells (#)	70	None
Spring Developments (#)	50	None
Oil & Gas Well Drilling (#)	None	3,071[1]
Activity	**BLM Total Depletion (acre-feet)**	**Other Water Proponent Total Depletion**
Reservoirs	113[2]	None
Water Wells	"but for..."	"but for..."
Springs	"but for..."	"but for..."
Oil & Gas Wells	None	None[1]
AVERAGE ANNUAL DEPLETION	113	None[3]

[1] Wells drilled from 1900-1987. Water used for drilling these wells was a one time use at the time of drilling and does not continue today. Water for drilling wells since 1988 is handled as new depletion.

[2] "But for..." on all but an estimated 10% of the perennial surface acres or 56.49 acres. Of this the ponds only average 1/2 full in any year. Calculation is as follows: 10% x 56.49 x 0.5 x 4' evaporation = 113 acre-feet/year.

[3] It should be noted that this refers to small depletions of less than 125 acre-feet/year. There are several major projects in the resource area using many thousands of acre-feet of water per year which would fall under the "major depletion" category and which were begun prior to 1988 (i.e., trona mines, coal mines, Bridger Power, phosphate plant, etc.).

APPENDIX 10-1

TABLE 6
FLOWING WELLS KNOWN TO CONTRIBUTE WATER TO PERENNIAL STREAMS

Source	Flow (gpm)
Little Sandy River	
Pencil Point/Flat Top	5
Roundtop Artesian	5
Big Sandy River	
Flowing Well Exclosure	7
Pacific Creek (above Jack Morrow)	5
Big Sandy Reservoir	10
Mitchell Slough	30
Bitter Creek	
Tenmile Marsh	6
Threemile Meadow	20
Above Hallville	30
Upper Bitter Creek	20
TOTAL	138

CALCULATION: 1 gpm = 1.613 acre-feet/year. 138 gpm x 1.613 = 222.6 acre-feet/year contribution.

TABLE 7
SEASONAL RESTRICTIONS FOR ALL SURFACE DISTURBANCE ACTIVITIES

Affected Areas	Restrictions	Restricted Area
Big Game Crucial Winter Ranges	November 15 - April 30	Antelope, elk, moose, and mule deer crucial winter ranges
Parturition Areas	May 1 - June 30	Designated parturition areas
Sage Grouse Leks and Nesting Areas	February 1 - July 31	Up to 2-mile radius of lek
Golden Eagle Nest	February 1 - July 31	Within 1/2 mile radius
Osprey Nest	February 1 - July 31	Within 1/2 mile radius
Swainson's Hawk Nest	February 1 - July 31	Within 1/2 mile radius
Ferruginous Hawk Nest	February 1 - July 31	Within 1-mile radius
Coopers Hawk Nest	February 1 - July 31	Within 1/2 mile radius
Burrowing Owl Nest	February 1 - July 31	Within 1/2 mile radius
Merlin Nest	February 1 - July 31	Within 1/2 mile radius
Other Raptors	February 1 - July 31	Within 1/2 mile radius

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APPENDIX 10-2
BIOLOGICAL OPINION

United States Department of the Interior

BUREAU OF LAND MANAGEMENT
Wyoming State Office
P.O. Box 1828
Cheyenne, Wyoming 82003-1828

In Reply Refer To:

6840 (932)

JUL 29 1994

Memorandum

To: District Manager, Rock Springs

From: Deputy State Director, Lands and Renewable Resources

Subject: Biological Assessment for the Green River Resource Management Plan EIS

Attached is a memo recently received from the U.S. Fish & Wildlife Service containing their Biological Opinion on our Biological Assessment of the impacts of the Green River RMP on the endangered fish species of the lower Colorado River. The depletion fee for the projected depletion of 73.05 acre-feet is waived. This concludes the Service's consultation on the impacts of the proposed action.

If you have any questions, please call Mark Gorges at 307-775-6100.

Roger Wickstrom
ACTING

Attachment

[illegible]

AUG 01 1994

United States Department of the Interior
FISH AND WILDLIFE SERVICE

Ecological Services
4000 Morrie Avenue
Cheyenne, Wyoming 82001

IN REPLY REFER TO

FWE-61411
spb/W.02(blmgrrmp.bo2)

July 12, 1994

Memorandum

To: State Director, Bureau of Land Management, Cheyenne, Wyoming

From: Field Supervisor, Ecological Services, Cheyenne, WY

Subject: Biological Assessment for the Green River Resource Management Plan EIS

Thank you for your memo of March 14, requesting formal consultation on the subject document. In accordance with section 7 of the Endangered Special Act of 1973, as amended (16 U.S.C. 1531 et seq.), and the Interagency Cooperation Regulations (50 CFR 402), the Fish and Wildlife Service (Service) reviewed your biological assessment regarding the impacts of projects described in the Bureau of Land Management's (Bureau) Green River Resource Area Resource Management Plan (RMP) on endangered Colorado River fish. On September 24, 1993, this office concurred that implementation of the RMP, as described, was not likely to adversely affect the endangered bald eagle (Haliaeetus leucocephalus), peregrine falcon (Falco peregrinus), black-footed ferret (Mustela nigripes), or whooping crane (Grus americana). We did not concur with your determination on the endangered fishes of the Colorado River System. The preferred alternative will cause an average annual depletion of 73.05 acre-feet.

A Recovery Implementation Program for Endangered Fish Species in the Upper Colorado River Basin (Recovery Program) was initiated on January 22, 1988. The Recovery Program was intended to be the reasonable and prudent alternative to avoid jeopardy to the endangered fish by depletions from the Upper Colorado River.

To further define and clarify the process in the Recovery Program, a section 7 agreement was implemented on October 15, 1993, by the Recovery Program participants (U.S. Fish and Wildlife Service 1993). Incorporated into this agreement is a Recovery Implementation Program Recovery Action Plan (Plan), which identifies actions currently believed to be required to recover the endangered fish of the Upper Colorado River Basin in the most expeditious manner possible.

A part of the Recovery Program was the requirement that, for projects resulting in a depletion of water from the Colorado River system, a depletion fee would be paid to help support the Recovery Program. On July 5, 1994, the Service issued a biological opinion determining that the fees for depletions of 100 acre-feet or less were no longer required. At that time, the Recovery

Program was judged to have made sufficient progress to be the reasonable and prudent alternative to avoid the likelihood of jeopardy to the endangered fishes and to avoid destruction or adverse modification of their critical habitat for depletions of 100 acre-feet or less. Therefore, the depletion fee for this project is waived.

Permits or other documents authorizing specific projects that result in depletions should state that the Bureau retains discretionary authority over each project for the purpose of endangered species consultation. If the Recovery Program is unable to implement the Plan in a timely manner, reinitiation of section 7 consultation may be required so that a new reasonable and prudent alternative can be developed by the Service.

This concludes the Service's consultation on the impacts of the proposed action. If new information becomes available, new species are listed, sufficient progress is not achieved, or should there be any changes in the action in a manner or to an extent not considered herein, formal section 7 consultation should be reinitiated.

We appreciate the Bureau's effort to address all depletions in the Green River Resource Area. We believe that this approach offers an opportunity to simultaneously evaluate cumulative impacts of many programs. Completion of this consultation will reduce the need for additional consultation on each individual project. We encourage the Bureau to initiate consultation for the other Resource Areas within the Colorado River Drainage in Wyoming, in one consultation, if possible. This will allow for a more complete review of depletion impacts, while minimizing paperwork for all involved. Such a consultation could be done on a programmatic basis (e.g., petroleum development), or, as was done in this case, on a geographic-area planning basis. My staff remains available to assist you as necessary.

Charles P. Davis

cc: Director, WGFD, Cheyenne, Wyoming

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DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
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